



Duke Eye Center

Duke
AVS
COURSE



22ND DUKE ADVANCED VITREOUS SURGERY COURSE

MARCH 24-25, 2023
WASHINGTON DUKE INN • DURHAM, NC

COURSE DIRECTOR

LEJLA VAJZOVIC, MD, FASRS

COURSE CO-CHAIRS

DILRAJ S. GREWAL, MD, FASRS • XI CHEN, MD, PhD • DURGA S. BORKAR, MD, MMCi

Beaumont

ACCREDITATION AND CREDIT DESIGNATION



In support of improving patient care, this activity has been planned and implemented by Beaumont Health, Medical Conference Planners Intl., and the Duke Eye Center. Beaumont Health is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

Beaumont Health designates this live activity for a maximum of **12.25 AMA PRA Category 1 Credit(s)™**. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

DUKE RETINA FACULTY



Lejla Vajzovic, MD, FASRS
Course Director



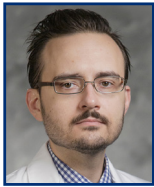
Dilraj S. Grewal, MD, FASRS
Course Co-Chair



Xi Chen, MD, PhD
Course Co-Chair



Durga S. Borkar, MD, MMCI
Course Co-Chair



Oleg Alekseev, MD, PhD



Michael J. Allingham, MD, PhD



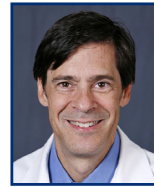
Sharon Fekrat, MD, FASRS



Majda Hadziahmetovic, MD



Alessandro Iannaccone,
MD, MS, FARVO



Glenn J. Jaffe, MD



Eleonora M. Lad, MD, PhD



Ramiro S. Maldonado, MD



Miguel A. Materin, MD



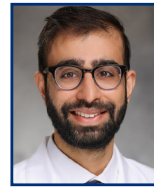
Prithu S. Mettu, MD



Eric A. Postel, MD



Stefanie G. Schuman, MD



Amol A. Sura, MD



Cynthia A. Toth, MD

Dear Colleagues,

On behalf of the entire Duke Eye Center Retina Faculty, we are pleased to welcome you to the 22nd Duke Advanced Vitreous Surgery (AVS) Course at the Washington Duke Inn.

The Duke AVS Course occurs biennially and was initiated about 46 years ago by the late Robert Machemer, MD when he came to Duke as Chairman of Ophthalmology. This year, we have about 100 fellow participants and an exceptional group of faculty. Additionally, we have awarded a travel grant to a limited number of PGY-3 residents who are applying for retina fellowship. We are continuing the tradition of innovation and education and are excited to host world-renowned speakers. The course provides a unique blend of lectures and interactive panels.

We are excited that you could join us and we hope that you will find this educational experience worthwhile.

Sincerely,

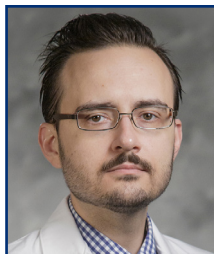
Lejla Vajzovic, MD, FASRS

Dilraj S. Grewal, MD, FASRS

Xi Chen, MD, PhD

Durga S. Borkar, MD, MMCI

DUKE RETINA FACULTY



**Oleg Alekseev,
MD, PhD**
oa63@duke.edu



**Majda
Hadziahmetovic, MD**
majda.hadziahmetovic@
duke.edu



Prithu S. Mettu, MD
priyatham.mettu@
duke.edu



**Michael J. Allingham,
MD, PhD**
mike.allingham@duke.edu



**Alessandro
Iannaccone,
MD, MS, FARVO**
alessandro.iannaccone@
duke.edu



Eric A. Postel, MD
eric.postel@duke.edu



**Durga S. Borkar,
MD, MMCI**
durga.borkar@duke.edu



Glenn J. Jaffe, MD
glenn.jaffe@duke.edu



**Stefanie G. Schuman,
MD**
stefanie.schuman@
duke.edu



Xi Chen, MD, PhD
xi2.chen@duke.edu



**Eleonora M. Lad,
MD, PhD**
nora.lad@duke.edu



Amol A. Sura, MD
amol.sura@duke.edu



**Sharon Fekrat,
MD, FASRS**
sharon.fekrat@duke.edu



**Ramiro S. Maldonado,
MD**
ramiro.maldonado@
duke.edu



Cynthia A. Toth, MD
cynthia.toth@duke.edu



**Dilraj S. Grewal,
MD, FASRS**
dilraj.grewal@duke.edu



**Miguel A. Materin,
MD**
miguel.materin@duke.edu



**Lejla Vajzovic,
MD, FASRS**
lejla.vajzovic@duke.edu

GUEST FACULTY



Thomas Aaberg, Jr., MD
Retina Specialists of Michigan
Grand Rapids, MI
tom@rsomi.com



Paul Hahn, MD, PhD
NJRetina
Tenafly, NJ
paulhahn@gmail.com



Jorge Rocha, MD, PhD
iRetina Eye Institute
Salvador, Brazil
jrocha1308@gmail.com



Wiley Chambers, MD
FDA
Silver Spring, MD
wiley.chambers@fda.hhs.gov



Ratimir Lazic, MD, PhD
University Eye Hospital
Svjetlost
Zagreb, Croatia
rratimir@yahoo.com



Gaurav K. Shah, MD
The Retina Institute
St. Louis, MO
gkshah1@gmail.com



Gemmy Cheung, MD
Singapore National
Eye Center
Singapore
gemmy.cheung.c.m@
singhealth.com.sg



Rajeev H. Muni, MD, MSc, FRCSC
University of Toronto
Toronto, Canada
Rajeev.muni@gmail.com



Alice Y. Zhang, MD
University of North
Carolina at Chapel Hill
Chapel Hill, NC
alice_zhang@med.unc.edu



Dean Elliot, MD
Massachusetts
Eye & Ear Infirmary/
Harvard Medical School
Boston, MA
dean_elliott@meei.harvard.edu



Zofia A. Nawrocka, MD, PhD
Nawroczy Ophthalmology
Lodz, Poland
z.nawrocka@yahoo.com



Margaret A. Greven, MD
Atrium Wake Forest Baptist
Winston-Salem, NC
mgreven@wakehealth.edu



Lisa C. Olmos de Koo, MD, MBA
University of Washington
Seattle, WA
lisa.olmos@gmail.com

7:00 AM - 5:45 PM	Registration & Exhibits
7:00 - 7:45 AM	Breakfast
7:45 - 8:00 AM	Welcome Remarks Lejla Vajzovic, MD, FASRS
8:00 - 9:28 AM	SESSION 1: Retinal Detachment
Chairs:	Thomas Aaberg, Jr., MD and Jorge Rocha, MD, PhD
8:00 - 8:08 AM	My Preferred Approach to Primary RD: Pneumatic Retinopexy - Tips and Tricks Rajeev H. Muni, MD, MSc, FRCSC
8:08 - 8:16 AM	Retinal Detachment Repair: Pre- and Post-Surgery Tips for Success Paul Hahn, MD, PhD
8:16 - 8:22 AM	Discussion
8:22 - 8:30 AM	Results of the PRO Trials Gaurav K. Shah, MD
8:30 - 8:38 AM	Minimally Invasive Needle Drainage for Subretinal & Suprachoroidal Fluid Lisa C. Olmos de Koo, MD, MBA
8:38 - 8:44 AM	Discussion
8:44 - 8:52 AM	Mechanisms in Retinal Detachment Repair: Novel Insights from Multimodal Imaging Rajeev H. Muni, MD, MSc, FRCSC
8:52 - 9:00 AM	Retinal Detachment After Open Globe Injury Dean Elliott, MD
9:00 - 9:06 AM	Discussion
9:06 - 9:14 AM	Removing Epiciliary Membranes - Can We Revive Prephthisical Eyes Ratimir Lazic, MD, PhD
9:14 - 9:22 AM	What to Keep in Mind When Designing Surgical Clinical Trials Wiley A. Chambers, MD
9:22 - 9:28 AM	Discussion

9:28 - 10:00 AM	Break
10:00 - 11:05 AM	SESSION 2: Diabetic Retinopathy and Retinal Vascular Disease
Chairs:	Sharon Fekrat, MD, FASRS and Lisa C. Olmos de Koo, MD, MBA
10:00 - 10:08 AM	Diabetic Surgery Primer Lisa C. Olmos de Koo, MD, MBA
10:08 - 10:16 AM	New Concepts in Retinal Vascular Occlusions Jorge Rocha, MD, PhD
10:16 - 10:22 AM	Discussion
10:22 - 10:44 AM	Debate: Diabetic Vitreous Hemorrhage
10:22 - 10:30 AM	My Preferred Approach: Early Vitrectomy Durga S. Borkar, MD, MMCi
10:30 - 10:38 AM	My Preferred Approach: Pharmacotherapy Gemmy Cheung, MD
10:38 - 10:44 AM	Voting and Discussion
10:44 - 11:05 AM	Debate: Diabetic Macular Edema
10:44 - 10:52 AM	Surgery Has a Role Zofia A. Nawrocka, MD, PhD
10:52 - 11:00 AM	In 2023, Pharmacotherapy is the Best Option Jorge Rocha, MD, PhD
11:00 - 11:05 AM	Voting and Discussion
11:05 AM - 12:15 PM	SESSION 3: Drugs and Devices
Chairs:	Glenn J. Jaffe, MD and Eleonora G. Lad, MD, PhD
11:05 - 11:13 AM	Novel Treatment Approaches to Neovascular AMD: Balancing Safety, Durability and Efficacy Glenn J. Jaffe, MD

11:13 - 11:21 AM **Interpreting Geographic Atrophy Clinical Studies: Similarities and Differences**
Eleonora G. Lad, MD, PhD

11:21 - 11:29 AM **Discussion**

11:29 - 11:37 AM **Biosimilars: What are They and How Does This Change Our Management?**
Michael J. Allingham, MD, PhD

11:37 - 11:45 AM **Steroids: Periocular vs. Intravitreal vs. Suprachoroidal: What to Choose and When?**
Dilraj S. Grewal, MD, FASRS

11:45 - 11:53 AM **Discussion**

11:53 AM - 12:15 PM Drugs and Devices Panel
Moderators: Glenn J. Jaffe, MD and Lejla Vajzovic, MD, FASRS

Panelists: Thomas Aaberg, Jr., MD
Durga S. Borkar, MD, MMCi
Wiley A. Chambers, MD
Dean Elliott, MD
Paul Hahn, MD, PhD
Rajeev H. Muni, MD, MSc, FRCSC
Lisa C. Olmos de Koo, MD, MBA
Gaurav K. Shah, MD

12:15 - 12:17 PM **Introduction of the 2023 Robert Machemer Foundation Vitreoretinal Research Scholarship Winner**
Cynthia A. Toth, MD
Chairman, The Robert Machemer Foundation Board

12:17 - 12:25 PM **Ultrastructural Glycomics Analysis of Bruch's Membrane in Age-related Macular Degeneration (AMD)**
Christopher B. Toomey, MD, PhD
2022 Robert Machemer MD and International Retinal Research Foundation Fellowship Winner

12:25 - 1:55 PM **Lunch and Satellite Event (non-CME)^**

12:55 - 1:40 PM **Satellite Event (non-CME)^: Power of 2: Dual Pathway Inhibition with Vabysmo for the Treatment of Diabetic Macular Edema**
Scott D. Walter, MD, MSc
(Sponsored by Genentech, Inc.)

1:55 - 2:25 PM

Moderators:

Faculty:

Fellows:

Fellows' Surgical Video Panel I (non-CME)^

Xi Chen, MD, PhD and Lejla Vajzovic, MD, FASRS

Sharon Fekrat, MD, FASRS
Paul Hahn, MD, PhD
Ratimir Lazic, MD, PhD
Rajeev H. Muni, MD, MSc, FRCSC
Zofia A. Nawrocka, MD, PhD
Jorge Rocha, MD, PhD
Gaurav K. Shah, MD
Cynthia A. Toth, MD

Rolake Alabi, MD, PhD
Juan M. Assad, MD
Hatim Ismail M. Batawi, MD, FRCSC
Joseph D. Bogaard, MD, PhD
Terry Hsieh, MD, PhD

2:25 - 2:55 PM

Industry Presentations (non-CME)^

Introductions:
Xi Chen, MD, PhD and Lejla Vajzovic, MD, FASRS

2:25 - 2:32 PM
2:32 - 2:35 PM
2:35 - 2:38 PM
2:38 - 2:41 PM
2:41 - 2:44 PM
2:44 - 2:47 PM
2:47 - 2:50 PM
2:50 - 2:53 PM
2:53 - 2:55 PM
2:55 - 3:25 PM

Alcon Vision, LLC
Alimera Sciences
Allergan, an AbbVie Company
Apellis Pharmaceuticals
DORC Intl/ Dutch Ophthalmic USA
Genentech, Inc.
Iveric Bio
Retina Consultants of America
Regeneron Pharmaceuticals, Inc.

Break

3:25 - 5:40 PM

Chairs:

3:25 - 3:33 PM

3:33 - 3:41 PM

3:41 - 3:47 PM

3:47 - 3:55 PM

3:55 - 4:03 PM

4:03 - 4:09 PM

4:09 - 4:17 PM

4:17 - 4:25 PM

4:25 - 4:33 PM

4:33 - 4:41 PM

4:41 - 4:49 PM

4:49 - 4:57 PM

4:57 - 5:05 PM

5:05 - 5:10 PM

SESSION 4:**Macular Diseases**Zofia A. Nawrocka, MD, PhD
and Gaurav K. Shah, MD**Considerations in
Macular Surgery**

Thomas Aaberg, Jr., MD

**Idiopathic Epiretinal
Membrane: What
Really Determines Final
Visual Outcomes?**

Zofia A. Nawrocka, MD, PhD

Discussion**Expanded Armamentarium:
My Approach to Neovascular
AMD in 2023**

Jorge Rocha, MD, PhD

**Macular Complications
Associated with Myopia**

Gemmy Cheung, MD

Discussion**OCT Angiography: When
I use it in my Clinic?**

Glenn J. Jaffe, MD

**Surgical Cockpit for
Macular Surgery**

Lejla Vajzovic, MD, FASRS

Discussion**Phacovitrectomy and
Premium IOLs**

Ratimir Lazic, MD, PhD

**Is the Inverted ILM Flap
Technique Suitable
for Any Eye?**

Zofia A. Nawrocka, MD, PhD

**My Approach to Refractory
Macular Holes**

Dilraj S. Grewal, MD, FASRS

**The PRIMA Subretinal
Implant for Dry AMD**

Lisa C. Olmos de Koo, MD, MBA

Discussion**5:10 - 5:40 PM***Moderators:*

Panelists:

5:40 - 5:45 PM

5:45 PM

5:45 - 6:30 PM

6:45 PM

7:00 - 10:00 PM

Macular Surgery Panel*Durga S. Borkar, MD, MMCI and
Sharon Fekrat, MD, FASRS*Thomas Aaberg, Jr., MD
Dean Elliott, MD
Dilraj S. Grewal, MD, FASRS
Ratimir Lazic, MD, PhD
Rajeev H. Muni, MD, MSc, FRCSC
Zofia A. Nawrocka, MD, PhD
Lisa C. Olmos de Koo, MD, MBA
Jorge Rocha, MD, PhD**Closing Remarks**

Xi Chen, MD, PhD

Adjourn**Duke Alumni Reception**Meet in the lobby of the
Washington Duke Inn
for shuttle transfer to
The Cotton Room**Dinner at The Cotton Room****SATURDAY | MARCH 25, 2023**

7:00 AM - 5:40 PM

Registration

7:00 AM - 3:15 PM

Exhibits

7:00 - 7:50 AM

Breakfast

7:50 - 8:00 AM

Welcome Remarks

Dilraj S. Grewal, MD, FASRS

8:00 - 9:30 AM

Chairs:

**SESSION 5:
Vitreoretinal Surgery in 2023**Dean Elliott, MD and
Cynthia A. Toth, MD

8:00 - 8:08 AM

**Proliferative Vitreoretinopathy
Primer and Surgical Tips**

Thomas Aaberg, Jr., MD

8:08 - 8:16 AM

Controversies in PVR Surgery

Dean Elliott, MD

8:16 - 8:22 AM

Discussion

8:22 – 8:30 AM	The Cost of Doing Surgery: A Health Economics Perspective Paul Hahn, MD, PhD
8:30 – 8:38 AM	Retinoschisis: What's Important Gaurav K. Shah, MD
8:38 – 8:44 AM	Discussion
8:44 – 8:52 AM	Overview of Retinal Folds Dean Elliott, MD
8:52 – 9:00 AM	Morphological Changes in Rhegmatogenous Retinal Detachment Rajeev H. Muni, MD, MSc, FRCSC
9:00 – 9:08 AM	My Perspective on How Clinical Trial Design has Evolved and Where It is Headed Wiley A. Chambers, MD
9:08 – 9:30 AM	Discussion
9:30 – 10:00 AM	Break
10:00 AM – 12:15 PM	SESSION 6: Tumors, Uveitis, and Clinical Trials
Chairs:	Wiley A. Chambers, MD and Glenn J. Jaffe, MD
10:00 – 10:08 AM	Congenital Lesions to Know Miguel A. Materin, MD
10:08 – 10:16 AM	Diagnostic Techniques for Vitreoretinal Lymphoma Dean Elliott, MD
10:16 – 10:22 AM	Discussion
10:22 – 10:30 AM	COVID 19 and Retina: Lessons Learnt Jorge Rocha, MD, PhD
10:30 – 10:38 AM	Developing Endpoints for Clinical Trials Wiley A. Chambers, MD
10:38 – 10:44 AM	Discussion
10:44 – 11:00 AM	Debate: Gene Therapy in Retinal Diseases
10:44 – 10:50 AM	Pro Lisa C. Olmos de Koo, MD, MBA

10:50 – 10:56 AM	Against Xi Chen, MD, PhD
10:56 – 11:00 AM	Voting and Discussion
11:00 AM – 12:15 PM	Tumors, Uveitis, and Clinical Trials Panel
<i>Moderators:</i>	<i>Dilraj S. Grewal, MD, FASRS and Miguel A. Materin, MD</i>
<i>Panelists:</i>	Durga S. Borkar, MD, MMCi Wiley A. Chambers, MD Gemmy Cheung, MD Dean Elliott, MD Glenn J. Jaffe, MD Jorge Rocha, MD, PhD Gaurav K. Shah, MD
12:15 – 1:45 PM	Lunch and Satellite Event (non-CME)^
12:45 – 1:30 PM	Satellite Event (non-CME)^: Early Identification and Management Strategies for Patients with Diabetic Macular Edema Gaurav K. Shah, MD (Sponsored by Allergan, an AbbVie Company)
1:45 – 2:15 PM	NCRC Surgical Video Panel II (non-CME)^
<i>Moderator:</i>	<i>Dilraj S. Grewal, MD, FASRS</i>
<i>Co-Moderators:</i>	<i>Omar S. Punjabi, MD and Rajiv E. Shah, MD</i>
<i>Faculty:</i>	Margaret A. Greven, MD Paul Hahn, MD, PhD Ratimir Lazic, MD, PhD Rajeev H. Muni, MD, MSc, FRCSC Zofia A. Nawrocka, MD, PhD Gaurav K. Shah, MD Alice Y. Zhang, MD
2:15 – 2:35 PM	Industry Presentations (non-CME)^
	<i>Introductions:</i> Durga S. Borkar, MD, MMCi and Dilraj S. Grewal, MD, FASRS
2:15 – 2:19 PM	Bausch + Lomb
2:19 – 2:21 PM	Castle Biosciences
2:21 – 2:23 PM	Coherus BioSciences
2:23 – 2:25 PM	Corza Medical
2:25 – 2:27 PM	EyePoint Pharmaceuticals
2:27 – 2:29 PM	Norlase

2:29 – 2:31 PM	Notal Vision	4:31 – 4:39 PM	Pediatric Retinal Diseases in Adulthood Lejla Vajzovic, MD, FASRS
2:31 – 2:33 PM	OCULUS Surgical, Inc.		
2:33 – 2:35 PM	REGENXBIO, Inc.		
2:35 – 3:07 PM	Break	4:39 – 4:47 PM	Inherited Retinal Degenerations: Genetic Testing, Treatment Approach and Current Clinical Trials Ramiro S. Maldonado, MD
3:07 – 4:15 PM	SESSION 7: Business of Retina and Practice Management	4:47 – 4:55 PM	Drug and Device Development in Rare and Common Diseases Wiley A. Chambers, MD
Chairs:	Ratimir Lazic, MD, PhD and Rajeev H. Muni, MD, MSc, FRCSC	4:55 – 5:00 PM	Discussion
3:07 – 3:15 PM	Retinal Malpractice Lessons Learned from OMIC Gaurav K. Shah, MD	5:00 – 5:30 PM	Imaging, IRD, and Pediatric Retina Case Panel <i>Xi Chen, MD, PhD</i>
3:15 – 3:23 PM	Upcoming GA Therapies: Managing our Clinic Flow Prithu S. Mettu, MD	<i>Moderator:</i>	Oleg Alekseev, MD, PhD
3:23 – 3:31 PM	Telescreening for Diabetic Retinopathy: Is it Financially Viable? Majda Hadziahmetovic, MD	<i>Panelists:</i>	Ramiro S. Maldonado, MD Cynthia A. Toth, MD Lejla Vajzovic, MD, FASRS
3:31 – 3:37 PM	Discussion	5:30 – 5:40 PM	Closing Remarks Durga S. Borkar, MD, MMCi
3:37 – 3:45 PM	What Have We Learned From AI: Potential Implications for our Practices Gemmy Cheung, MD	5:40 PM	Adjourn
3:45 – 3:53 PM	Emerging Applications of EHR Registries for Vitreoretinal Research Durga S. Borkar, MD, MMCi	6:45 PM	Meet in the lobby of the Washington Duke Inn for shuttle transfer to Geer Street Garden
3:53 – 4:08 PM	Lessons from my Personal Surgery Graveyard Thomas Aaberg, Jr., MD	7:00 – 10:00 PM	Dinner at Geer Street Garden
4:08 – 4:15 PM	Discussion		
4:15 – 5:30 PM	SESSION 8: Imaging, IRD, and Pediatric Retina		
Chairs:	Xi Chen, MD, PhD and Lejla Vajzovic, MD, FASRS		
4:15 – 4:23 PM	Multimodal Imaging in Pediatric VR Surgery Cynthia A. Toth, MD		
4:23 – 4:31 PM	Approaching Young Patients Without a PVD: Surgical Tips and Tricks Xi Chen, MD, PhD		

^Not part of the educational activity.

The 22nd Duke Advanced Vitreous Surgery Course gratefully acknowledges the following companies for their support:

DIAMOND

Alcon Vision, LLC

PLATNUM

Bausch + Lomb

GOLD

Alimera Sciences
Allergan, an AbbVie Company
Apellis Pharmaceuticals
DORC Intl / Dutch Ophthalmic USA

Genentech, Inc.
Iveric Bio
Retina Consultants of America

SILVER

Castle Biosciences
Coherus BioSciences
Corza Medical

EyePoint Pharmaceuticals
Norlase
Notal Vision

OCULUS Surgical, Inc.
Regeneron Pharmaceuticals, Inc.
REGENXBIO, Inc.

BRONZE

Aldeyra Therapeutics
Annexon Biosciences, Inc.
Heidelberg Engineering

EDUCATIONAL GRANTS

AbbVie Inc.
Alcon Vision, LLC
Bausch + Lomb
Genentech, Inc.
Janssen Pharmaceuticals
Regeneron Pharmaceuticals, Inc.

MEDIA PARTNER

Retina Today/EyeTube



MEDICAL
CONFERENCE
PLANNERS
INTERNATIONAL

avs@medconfs.com
www.medconfs.com