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2025

TABLE OF CONTENTS

Officers and Council of the American Ophthalmological Society	<u>3</u>
Editorial Board of the American Ophthalmological Society	<u>3</u>
Presidents of the Society	<u>4</u>
Membership List 2025.....	<u>6</u>
Minutes of the Proceedings	<u>8</u>
Paper and Poster Abstracts	<u>10</u>
Members Registered for the 2025 Annual Meeting.....	<u>14</u>
Named Lectures	<u>16</u>
Medal Recipients.....	<u>18</u>
2025 Theses Published in the AJO	<u>20</u>
Report from the Executive Vice President & Editor.....	<u>21</u>
Report from the Council Chair.....	<u>22</u>
Report from the Committee on Theses.....	<u>24</u>
Report from the Committee on Programs.....	<u>24</u>
Report from the Committee on Membership	<u>26</u>
Report from the Archivist Photographer	<u>27</u>
Report from the Committee on Emeriti	<u>28</u>
Report from the Committee on New Members	<u>29</u>
Report from the Committee on Athletics.....	<u>30</u>
Report from the Committee on Prizes.....	<u>32</u>
Report from the Audit Committee	<u>33</u>
AOS Council Appointments 2025-2026	<u>34</u>
Report from the Representative to the Council of the American Academy of Ophthalmology	<u>35</u>
Report from the Representative to the American College of Surgeons	<u>36</u>
Report from the Representative to the American Orthoptic Council	<u>37</u>
Report from the Representative to the Heed Ophthalmic Foundation.....	<u>38</u>
Report from the Representative to the International Joint Commission on Allied Health Personnel in Ophthalmology	<u>39</u>
Report from the Representative to the Pan-American Association of Ophthalmology/ Pan-American Association of Ophthalmological Foundation	<u>40</u>
Necrology in Memorium	<u>41</u>

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ELECTED AT THE ANNUAL MEETING

May 15-17, 2025

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Browning, David (2010)
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Burgoyne, Claude (2023)
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Chan, Clement (2014)
Chan, Paul (2015)
Chang, Ta Chen Peter (2022)
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Chen, John (2023)
Chen, Teresa (2009)
Chew, Emily (2005)
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Cioffi, George (2005)
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Correa, Zelia (2019)
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Davis, Janet (2012)
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Donahue, Sean (2005)
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Dupps Jr., William (2016)
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Edward, Deepak Paul (2011)
Elman, Michael (1996)
Elner, Susan (2002)
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Ferris, Frederick (1996)
Fingert, John (2016)
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Flaxel, Christina (2013)
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Fountain, Tamara (2014)
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Gamm, David (2019)
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Gedde, Steven (2021)
Ghasia, Fatema (2024)
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Golnik, Karl (2013)
Gragoudas, Evangelos (1998)
Gross, Ronald (1999)
Grossniklaus, Hans (1998)
Gupta, Neeru (2019)
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Haller, Julia (1996)
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Harbour, James (2019)
Hartnett, Mary (2010)
Hersh, Peter (2005)
Holland, Gary (2007)
Horton, Jonathan (1997)
Huang, Alex (2025)
Huang, David (2013)
Hubbard, G. Baker (2021)
Humayun, Mark (2001)
Ip, Michael (2023)
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Jampel, Henry (2001)
Jayasundera, K. Thiran (2022)
Jeng, Bennie (2018)
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Jonas, Jost (2014)
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Kempen, John (2019)
Kerr, Natalie (2011)
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Kim, Judy (2012)
Kinoshita, Shigeru (2012)
Kokame, Gregg (2014)
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Kuchtey, Rachel (2024)
Kuppermann, Baruch (2014)
Lai, Timothy (2015)
Lam, Byron (2023)
Lawrence, Mary (2004)
Leffler, Christopher (2021)
Levin, Alex (2014)
Levin, Leonard (2007)
Lim, Jennifer (2018)
Lim, Michelle (2020)
Lin, Shan (2016)
Lisch, Walter (2016)
Lobo-Chan, Ann-Marie (2024)
Lueder, Gregg (2012)
Magrath, George (2025)
Manche, Edward (2011)
Mancini, Ronald (2023)
Mannis, Mark (2000)
Mansberger, Steven (2013)
McCannel, Colin (2017)
McCulley, Timothy J. (2013)
McDonald, Marguerite (2005)
McLeod, Stephen (2006)
Merriam, John (1996)
Mian, Shazhad (2015)
Midena, Edoardo (2025)
Mieler, William (1997)
Miller, Joan (2008)
Miller, Joseph (2010)
Milman, Tatyana (2019)
Morrison, John (2006)
Myers, Jonathan (2023)
Netland, Peter (2009)
Newman, Steven (2007)
Nguyen, Quan (2016)
Nischal, Kanwal (2016)
Nork, T. Michael (2000)
Nouri-Mahdavi, Kourosh (2019)
O'Brien, Joan (2018)

Olivier, Mildred (2024)
Olsen, Timothy (2008)
Parke II, David (2007)
Parsa, Cameron (2013)
Pasquale, Louis (2013)
Pennesi, Mark (2025)
Perez Quinones, Victor (2022)
Ramulu, Pradeep (2021)
Randleman, J. Bradley (2025)
Rapuano, Christopher (2003)
Rocha, Karolinne (2020)
Rosa, Robert (2022)
Rosen, Richard (2019)
Rush, Ryan (2022)
Sadda, Srinivas (2020)
Sahel, José-Alain (2021)
Sallum, Juliana (2024)
Sarraf, David (2014)
Schanzlin, David (1999)
Schmidt-Erfurth, Ursula (2020)
Schubert, Hermann (2005)
Schuman, Joel (2008)
Schwartz, Daniel (2003)
Scott, Ingrid (2022)
Sears, Jonathan (2013)
Sebag, Jerry (2005)
Seddon, Johanna (2019)
Sen, Nida (2017)
Sheth, Bhavna (2022)
Shields, Carol (2000)
Shtein, Roni (2016)
Siatkowski, R. Michael (2011)
Siegfried, Carla (2019)
Silkiss, Rona (2016)
Simunovic, Matthew (2025)
Singer, Michael (2023)
Singh, Arun (2022)
Skuta, Gregory (2022)
Slakter, Jason (2015)
Sobrin, Lucia (2021)
Souied, Eric (2020)
Spaide, Richard (2019)
Stager Jr., David (2013)
Stamper, Robert (1984)
Stein, Joshua (2013)
Stewart, Michael (2019)
Stone, Edwin (2003)
Stout, Timothy (2006)
Suh, Donny (2021)

Tao, Jeremiah (2021)	Tyschen, R. Lawrence (2007)	Wallace, David (2007)	Wilson, M. Roy (2002)
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Topouzis, Fotis (2019)	Vajarantan, Thasarat (2019)	Waring, IV, George (2021)	Wladis, Edward (2019)
Traboulsi, Elias (2004)	VanderVeen, Deborah (2022)	Weakley Jr., David (1999)	Wong, Tien Yin (2019)
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Tsai, James (2008)	Van Kuijk, Fredericus (2017)	Weiss, Jayne (2007)	Young, Terri (2004)
Tsang, Stephen (2014)	Van Meter, Woodford (1996)	Wiggs, Janey (2014)	Zacks, David (2009)
Tse, David (2005)	Volpe, Nicholas (2015)	Wilson, David (2002)	Zarbin, Marco (2003)

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Alfonso, Eduardo (2008)	France, Thomas (1984)	Lewis, Richard Alan (1989)	Schein, Oliver (2000)
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Bartley, George (1994)	Gelender, Henry (2006)	Liu, Donald (2005)	Sergott, Robert (1991)
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Brodsky, Michael (2007)	Gutman, Froncie (1979)	Meredith, Travis (1993)	Spaeth, George (1975)
Bronson, Nathaniel (1972)	Guyton, David (1986)	Mets, Marilyn (1999)	Spencer, Rand (2006)
Brown, Gary (1999)	Hagler, William (1980)	Metz, Henry (1983)	Spivey, Bruce (1976)
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Burton, Thomas (1982)	Harris, Gerald (1993)	Minckler, Donald (1986)	Stager Sr., David (1996)
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Carr, Ronald (1974)	Holland, Edward (1996)	Mitchell, Paul (1998)	Sugar, Alan (1989)
Chan, Chi-Chao (2003)	Huang, Andrew (2007)	Nelson, J. Daniel (1995)	Taylor, Hugh (1989)
Chow, Alan (2010)	Hull, David (1990)	Nirankari, Verinder (1992)	Terry, Mark (2007)
Clarkson, John (1992)	Hyndiuk, Robert (1981)	O'Neill, John (1998)	Townsend, William (1991)
Coats, David (2005)	Illif, W. Jackson (1985)	Parrish II, Richard (1996)	Van Buskirk, E. Michael (1988)
Cohen, Elisabeth (2009)	Ing, Malcolm (1981)	Payne, John (1980)	Van Newkirk, Mylan (1997)
Coleman, D. Jackson (1986)	Jabs, Douglas (1995)	Paysse, Evelyn (2004)	Veronneau-Troutman, Suzanne (1978)
Crawford, J. Brooks (1980)	Jampol, Lee (1987)	Pepose, Jay (2011)	Vine, Andrew (2000)
Darrell, Richard (1981)	Jarrett, William (1981)	Pollard, Zane (1997)	Waller, Robert (1982)
Dayton, Glenn (1977)	Jones, Dan (1980)	Pulido, Jose (1996)	Watzke, Robert (1968)
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Ellis, Phillip (1971)	Kelley, James (1983)	Rao, Narsing (1990)	Wilhelms, Kirk (2000)
Elner, Victor (2002)	Kenyon, Kenneth (1985)	Ravin, James (2008)	Wilkinson, Charles (1981)
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Farris, R. Linsky (1985)	Klein, Barbara (1993)	Rich, Larry (1999)	Wilson, Steven (2002)
Federman, Jay (1982)	Koch, Douglas (1996)	Richards, Richard (1966)	Wong, Vernon (1972)
Feldon, Steven (2004)	Kreiger, Allan (1991)	Ritch, Robert (1994)	Woog, John (2007)
Feman, Stephen (1994)	Laibson, Peter (1976)	Robertson, Dennis (1978)	Yannuzzi, Lawrence (1986)
Flach, Allan (1998)	Lakhanpal, Vinod (1993)	Robin, Alan (1989)	Yanoff, Myron (1975)
Flanagan, Joseph (1980)	Landers III, Maurice (1978)	Rogers, Gary (2003)	Yeatts, R. Patrick (2005)
Forbes, Max (1974)	Lawwill, Theodore (1982)	Runge, Paul (2000)	Younge, Brian (1984)

MINUTES OF THE PROCEEDINGS

ONE HUNDRED AND SIXTY-FIRST ANNUAL MEETING MAY 15-17, 2025

THE ONE HUNDRED AND SIXTY-FIRST ANNUAL MEETING OF THE AMERICAN OPHTHALMOLOGICAL SOCIETY (AOS) WAS HELD AT THE RITZ-CARLTON, NAPLES IN NAPLES, FLORIDA.

On May 15, 2025, Thursday, President **Julia A. Haller, MD** called the opening session to order. The program began with the following Thursday sessions.

SCIENTIFIC PAPER SESSION I: THURSDAY, MAY 15, 2025

1. Changes in Geographic Atrophy, Drusen, and Macular Volume and Thickness in Eyes with Intermediate Age-Related Macular Degeneration (AMD) in Patients with Neovascular AMD in Their Contralateral Eyes: The Prevent Trial

Clement Chan, Brandon Lujan, Wesley Beaulieu, Glenn Yiu, Maziar Lalezary, Michael Elman

2. Quantifying Effects of Lifestyle Changes on Progression to Advanced Age-Related Macular Degeneration in High Genetic Risk Individuals

Johanna Seddon, Dikha De, Bernard Rosner

3. Subcutaneous Migaldendranib 24-Week Phase 2 Study Results for Chronic Dosing for the Treatment of Neovascular Age-Related Macular Degeneration and Diabetic Macular Edema

Michael Singer, Susan Schneider, Jeff Cleland

4. Prevalence and Risk Factors Associated with Maintaining Bilateral Excellent Visual Acuity and Experiencing Legal Blindness Among Octogenarians

Joshua Stein, Nuha Mahmood, Shikha Marwah

5. Applied Artificial Intelligence to Characterize the Risk of Corneal Ectasia Among Refractive Surgery Candidates

Renato Ambrosio, Jr., Aydano Machado

6. Visual Performance and Objective Depth of Focus from Ray Tracing Aberrometry in Small Aperture Optics Intraocular Lens in Eyes with Aberrated Corneas

Karolinne Rocha, Marcela Barros, Roberta Van den Berg, Stephen D. Klyce



2025 Gala Banquet

SCIENTIFIC PAPER SESSION II: FRIDAY, MAY 16, 2025

1. High-Dose Intravitreal Topotecan for Recurrent Retinoblastoma, Subretinal Seeds, and Vitreous Seeds in 13 Consecutive Cases

Carol Shields, Madison Woods, YuBai Chou, Rolika Bansal, Hidayet Sener, Sara Lally, Jerry Shields

2. International Multicenter Prospective Analysis of Driver Mutations in 1140 Uveal Melanoma Patients Enrolled in the Collaborative Ocular Oncology Group Study Number 2 (COOG2)

J. William Harbour, Zelia Correa, Amy Scheffler, Prithvi Mruthyunjaya, Miguel Materin, Thomas Aaberg, Jr., Alison Skalet, David Reichstein, Ezekiel Weis, Ivana Kim, Timothy Fuller, Hakan Demirci

3. A Novel Tear-Based Assay to Distinguish Ocular Surface Squamous Neoplasia from Pterygia

Wisam Najdawi, Wendy Li, Acadia Moeyersoms, Sofia DeArrigunaga, Despoina Theotoka, Ryan Gallo, Oikai Wang, Mike Zein, Mona Amer, Stefan Kurtenbach, Daniel Peleaz, Carol Karp

4. Development and Cross-Validation of the 16-Protein Algorithm to Identify High-Risk Uveal Melanoma Lesions

Zelia Correa, David Reichstein, Amy Scheffler, Julia Litvinov, Olga Zolochevska, Kyle Covington, Katherine Alsina, J. William Harbour

EXECUTIVE SESSION: FRIDAY, MAY 16, 2025

- Reversal of Misfortune – A Rapid Oct-Confirmed Eyestroke Treatment (ROCKET) Protocol for Retinal Artery Occlusions Management
Richard Rosen, Gareth Lema, Reade De Leacy, Michael Fara, Robin Ginsburg, Alexander Barash, Bryana Banashefski, **Louis Pasquale, James Tsai**
- Breaking the Barriers: Impact of Implementation of Non-Mydriatic Ocular Fundus Cameras in Emergency Departments
Valerie Biousse, Nancy Newman

MARILYN T. MILLER LECTURE: FRIDAY, MAY 16, 2025

Corporatization of Ophthalmology – Drivers and Implications

David W. Parke, II, MD

KNAPP SYMPOSIUM: ECONOMIC FACTORS AFFECTING OPHTHALMOLOGIC PRACTICES TODAY:

FRIDAY, MAY 16, 2025

- Introduction – **Carol L. Karp, MD**
- Economics: Effects of Private Equity (PE) on Healthcare – **David C. Herman, MD**
- External Forces Impacting the Trainees – **Anne L. Coleman, MD, PhD**
- Maintaining Ethics in a Changing Environment – **Paul R. Lichter, MD**
- Labor/Physicians as Employees – **Stephen D. McLeod, MD**

SCIENTIFIC PAPER SESSION III:

SATURDAY, MAY 17, 2025

- Non-invasive Biopsy Diagnosis of Diabetic Kidney Disease Using Deep Learning Applied to Retinal Images
Tien Yin Wong, Ziyao Meng, Zhouyu Guan, Carol Y Cheung, Gavin Siew Wei Tan, Yih Chung Tham, Ching-Yu Cheng, Charumathi Sabanayagam, Lee-Ling Lim, Weiping Jia, Huating Li, Bin Sheng
- Efficient Image Based Screening for Eye Disease within Community Primary Care Centers
Mitchell Brinks, David Wilson



Audience Q & A

- The Latest Data from Lenadogene Nolparvovec Gene Therapy Trials for Leber Hereditary Optic Neuropathy
Nancy Newman, Valerie Biousse, Patrick Yu-Wai-Man, Valerio Carelli, Magali Taiel, Jose-Alain Sahel
- Pocket Steroids for MOGAD Relapses: A Prospective Study
John Chen, Nanthaya Tisavipat, Natthapon Rattanathamsakul, Deena Tajfirooz, Eric Eggenberger, Marie Di Nome, Elias Sotirchos, Amanda Henderson, **Anthony Arnold**, Laura Bonelli, Sean Pittock, Eoin Flanagan
- Adalimumab Drug Levels and the Development of Anti-drug Antibodies: Results from the Adalimumab in Juvenile Idiopathic Arthritis-associated Uveitis Stopping Trial (ADJUST)
Nisha Acharya, A.V. Ramanan, Alison Coyne, Kathryn Dudum, Elia Rubio, Sydney Woods, Catherine Guly, Elena Moraitis, Harry Petrushkin, Kate Armon, Narman Puvanachandra, Ben Arnold
- Twelve-Week Non-Inferiority Trial on the Safety and Efficacy of IOP-Lowering 12.5 µL Eye Drops in Glaucoma Patients
Alan Robin, Jennifer Steger, Jose Capó-Aponte, Alexandra Papp, Alexandra Schulte, Elizabeth Colantuoni, Jared Kelstrom

FREDERICK H. VERHOEFF LECTURE:

SATURDAY, MAY 17, 2025

The Transformative Role of Deep Learning in Ophthalmology and Vision Science
Aaron Y. Lee, MD, MS

SATURDAY SYMPOSIUM: ARTIFICIAL INTELLIGENCE (AI) AND ITS IMPACT ON OPHTHALMOLOGY / MEDICINE

- Introduction – **Emily Y. Chew, MD**
- Automating Academia: Uses and Abuses of AI in Ophthalmic Literature – **Russell N. Van Gelder, MD, PhD**
- AI for Diabetic Retinopathy – **Judy E. Kim, MD**
- AI for Age-related Macular Degeneration – **Jennifer I. Lim, MD**
- AI for Glaucoma – **Joel S. Schuman, MD, FACS**
- AI for Systemic Diseases – **Tien Yin Wong, MD, PhD**

AOS MEDAL PRESENTATION, MAY 17, 2025

Stephen D. McLeod, MD and David C. Herman, MD



PAPER AND POSTER ABSTRACTS



Poster Session

PAPER ABSTRACTS

CHANGES IN GEOGRAPHIC ATROPHY, DRUSEN, AND MACULAR VOLUME AND THICKNESS IN EYES WITH INTERMEDIATE AGE-RELATED MACULAR DEGENERATION (AMD) IN PATIENTS WITH NEOVASCULAR AMD IN THEIR CONTRALATERAL EYES, THE PREVENT TRIAL

Clement Chan*, Brandon Lujan, Wesley Beaulieu, Glenn Yiu, Maziar Lalezary, **Michael Elman**

QUANTIFYING EFFECTS OF LIFESTYLE CHANGES ON PROGRESSION TO ADVANCED AGE-RELATED MACULAR DEGENERATION IN HIGH GENETIC RISK INDIVIDUALS

Johanna Seddon*, Dikha De, Bernard Rosner

SUBCUTANEOUS MIGALDENDRANIB 24-WEEK PHASE 2 STUDY RESULTS FOR CHRONIC DOSING FOR THE TREATMENT OF NEOVASCULAR AGE-RELATED MACULAR DEGENERATION AND DIABETIC MACULAR EDEMA

Michael Singer*, Susan Schneider, Jeff Cleland

PREVALENCE AND RISK FACTORS ASSOCIATED WITH MAINTAINING BILATERAL EXCELLENT VISUAL ACUITY AND EXPERIENCING LEGAL BLINDNESS AMONG OCTOGENARIANS

Joshua Stein*, Nuha Mahmood, Shikha Marwah

APPLIED ARTIFICIAL INTELLIGENCE TO CHARACTERIZE THE RISK OF CORNEAL ECTASIA AMONG REFRACTIVE SURGERY CANDIDATES

Renato Ambrosio, Jr.*, Aydano Machado

VISUAL PERFORMANCE AND OBJECTIVE DEPTH OF FOCUS FROM RAY TRACING ABERROMETRY IN SMALL APERTURE OPTICS INTRAOULAR LENS IN EYES WITH ABERRATED CORNEAS

Karolinne Rocha*, Marcela Barros, Roberta Van Den Berg, Stephen D. Klyce

HIGH-DOSE INTRAVITREAL TOPOTECAN FOR RECURRENT RETINOBLASTOMA, SUBRETINAL SEEDS, AND VITREOUS SEEDS IN 13 CONSECUTIVE CASES

Carol Shields*, Madison Woods, Yubai Chou, Rolika Bansal, Hidayet Sener, Sara Lally, **Jerry Shields**

INTERNATIONAL MULTICENTER PROSPECTIVE ANALYSIS OF DRIVER MUTATIONS IN 1140 UVEAL MELANOMA PATIENTS ENROLLED IN THE COLLABORATIVE OCULAR ONCOLOGY GROUP STUDY NUMBER 2 (COOG2)

J. William Harbour*, **Zelia Correa**, Amy Scheffler, Prithvi Mruthyunjaya, Miguel Materin, Thomas Aaberg, Jr., Alison Skalet, David Reichstein, Ezekiel Weis, **Ivana Kim**, Timothy Fuller, Hakan Demirci

A NOVEL TEAR-BASED ASSAY TO DISTINGUISH OCULAR SURFACE SQUAMOUS NEOPLASIA FROM PTERYGIA

Wisam Najdawi, Wendy Li, Acadia Moeyersoms, Sofia Darrigunaga, Despoina Theotoka, Ryan Gallo, Oikai Wang, Mike Zein, Mona Amer, Stefan Kurtenbach, Daniel Pelez, **Carol Karp***

DEVELOPMENT AND CROSS-VALIDATION OF THE 16-PROTEIN ALGORITHM TO IDENTIFY HIGH-RISK UVEAL MELANOMA LESIONS

Zelia Correa*, David Reichstein, Amy Scheffler, Julia Litvinov, Olga Zolochevska, Kyle Covington, Katherina Alsina, **J. William Harbour**

REVERSAL OF MISFORTUNE - A RAPID OCT-COFIRMED EYESTROKE TREATMENT (ROCKET) PROTOCOL FOR RETINAL ARTERY OCCLUSIONS MANAGEMENT

Richard Rosen*, Gareth Lema, Reade De Leacy, Michael Fara, Robin Ginsburg, Alexander Barash, Bryana Banashefski, **Louis Pasquale**, **James Tsai**

BREAKING THE BARRIERS: IMPACT OF IMPLEMENTATION OF NON-MYDRIATIC OCULAR FUNDUS CAMERAS IN EMERGENCY DEPARTMENTS

Valerie Biousse*, Nancy Newman

NON-INVASIVE BIOPSY DIAGNOSIS OF DIABETIC KIDNEY DISEASE USING DEEP LEARNING APPLIED TO RETINAL IMAGES

Tien Yin Wong*, Ziyao Meng, Zhouyu Guan, Carol Y Cheung, Gavin Siew Wei Tan, Yih Chung Tham, Ching-Yu Cheng, Charumathi Sabanayagam, Lee-Ling Lim, Weiping Jia, Huating Li, Bin Sheng

EFFICIENT IMAGE BASED SCREENING FOR EYE DISEASE WITHIN COMMUNITY PRIMARY CARE CENTERS

Mitchell Brinks*, **David Wilson**

**THE LATEST DATA FROM LENADOGENE NOLPARVOVEC
GENE THERAPY TRIALS FOR LEBER HEREDITARY OPTIC
NEUROPATHY**

Nancy Newman*, Valerie Biousse, Patrick Yu-Wai-Man, Valerio Carelli, Magali Taiel, Jose-Alain Sahel

**POCKET STEROIDS FOR MOGAD RELAPSES:
A PROSPECTIVE STUDY**

John Chen*, Nanthaya Tisavipat, Natthapon Rattanathamsakul, Deena Tajfirouz, Eric Eggenberger, Marie Di Nome, Elias Sotirchos, Amanda Henderson, Anthony Arnold, Laura Bonelli, Sean Pittock, Eoin Flanagan

**ADALIMUMAB DRUG LEVELS AND THE DEVELOPMENT
OF ANTI-DRUG ANTIBODIES: RESULTS FROM
THE ADALIMUMAB IN JUVENILE IDIOPATHIC
ARTHRITIS ASSOCIATED UVEITIS STOPPING TRIAL (ADJUST)**

Nisha Acharya*, A.V. Ramanan, Alison Coyne, Kathryn Dudum, Elia Rubio, Sydney Woods, Catherine Guly, Elena Moraitis, Harry Petrushkin, Kate Armon, Narman Puvanachandra, Ben Arnold

**TWELVE-WEEK NON-INFERIORITY TRIAL ON THE SAFETY
AND EFFICACY OF IOPOWERING 12.5 μ L EYE DROPS IN
GLAUCOMA PATIENTS**

Alan Robin*, Jennifer Steger, Jose Capó-Aponte, Alexandra Papp, Alexandra Schulte, Elizabeth Colantuoni, Jared Kelstrom

POSTER ABSTRACTS

**OPACITY DETECTION ON OPTICAL COHERENCE
TOMOGRAPHY BASED ON AN INCIDENCE-ANGLE AND
DEPTH-DEPENDENT MODEL OF CORNEAL REFLECTANCE**

Jad Assaf*, Hady Yazbeck, Deion Sims, Jiachi Hong, Chun-Fu Liu, Irem Gunes, Yan Li, David Huang

**MACULAR PIGMENTARY CHANGES IN DIABETICS WITHOUT
DIABETIC RETINOPATHY**

Francesco Bandello*, Alessandro Arrigo

**PATIENTS WITH DRAGGED OPTIC DISC VESSELS AND
RETINAL FOLDS: CLINICAL FEATURES, MULTIMODAL
IMAGING, AND HISTOPATHOLOGY**

Audina Berrocal*, Prashant Iyer, Julia Hudson, Sander Dubovy, Harry Flynn Jr.

**EXPLORING THE RELATIONSHIP BETWEEN VISUAL
PHOTOSensitivity AND PSYCHOLOGICAL FACTORS IN
INDIVIDUALS WITH TRAUMATIC BRAIN INJURY**

Shreya Bhatt*, Mariela Aguilar, Heather Durkee, Alex Gonzalez, David Valdes Arias, Brandon Chou, James Lai, Barry Hurwitz, Byron Lam, Elizabeth Felix, Jean-Marie Parel, Anat Galor

**HEALTHCARE ACCESS AND SURGICAL MANAGEMENT OF
EPIPHORA IN CALIFORNIA MEDICARE BENEFICIARIES**

Janet Coleman-Belin*, Fei Yu, Victoria Tseng, Ken Kitayama, Robert Goldberg

**OCULAR SURFACE STATUS DIFFERENTIATES BRAIN
ACTIVITY IN INDIVIDUALS WITH CHRONIC OCULAR PAIN**

Anat Galor*, David Valdes, Eric Moulton, Elizabeth Felix, Araliya Gunawarde

**SUBTHALAMIC NUCLEUS DEEP BRAIN STIMULATION
MODULATES STRABISMUS IN PARKINSON'S DISEASE**

Fatema Ghasia*, Palak Gupta, Sinem Beylergil, Camila Kilbane, Cameron McIntyre, Angela Noecker, Aasef Shaikh

**DEMOGRAPHIC AND CLINICAL FACTORS INFLUENCING
LIGHT SENSITIVITY AMONG CHRONIC OCULAR PAIN
PATIENTS**

Ema Karakoleva*, Nicholas Pondelis, Cameron Talbert, Mariela Aguilar, Alex Gonzalez, Heather Durkee, Paula Sepulveda-Beltran, David Valdes-Arias, Elizabeth Felix, Jean-Marie Parel, Eric Moulton, Anat Galor

**RACE MODIFIES THE ASSOCIATIONS BETWEEN EXPOSURE
TO AIR POLLUTION AND GLAUCOMA AMONG CALIFORNIA
MEDICARE BENEFICIARIES**

Ken Kitayama*, Victoria Tseng, Fei Yu, Anne Coleman

**IN SEARCH OF MOUSE MODELS FOR EXFOLIATION
SYNDROME**

Rachel Kuchtey*, Samuel Insignares, Tzushan Yang, John Kuchtey

**CASANOVA'S TRUTHS: TADINI'S MONOCULAR CATARACT
EXTRACTION, AND CASAAMATA'S INTRAOCULAR LENS IN
THE 1790S.**

Christopher Leffler*

**GLAUCOMA MANAGEMENT IN STURGE WEBER SYNDROME
USING THE DELPHI PROCESS**

Alex Levin*, Kinza Abbas, Bailey Harrison, Ta Chen Peter Chang, Beth Edmunds, Benjamin Hammond, Gregg Lueder, Ken Nischal, Monte Mills, David Walton, Lauren Blieden, Sharon Freedman, David Plager

**PRESENTING FACTORS PREDICTIVE OF SURGERY AMONG
PEDIATRIC GLAUCOMA PATIENTS**

Alex Levin*, Kinza Abbas

**RETINAL HEMORRHAGE AFTER COVID-19 INFECTION AND
VACCINATION IN PEDIATRIC PATIENTS**

Alex Levin*, Brittany Wong, Nir Zontag, Jacob Perkins

**EYELID MALPOSITION FOLLOWING GLAUCOMA SURGERY:
A RETROSPECTIVE ANALYSIS USING THE SOURCE
DATABASE**

Kira Lin*, Alice Chuang, Holden Baird, Robert Feldman, **Timothy McCulley**, Ying Chen

**DEVELOPMENT OF ENDPOINTS FOR THE FIRST
INTERVENTIONAL GENE THERAPY CLINICAL STUDY IN BEST
DISEASE USING ANIMAL MODEL AND NATURAL HISTORY
DATA**

Ash Jayagopal, Jean Bennett, Artur Cideciyan, Tomas Aleman, **Jose Pulido**, Mark Pennesi, Christine Kay, Maximilian Gerhardt, Sally Tucker, **George Magrath***

**PERCEIVED ABLEISM IN DIABETIC RETINAL DISEASES
VARIES AS A FUNCTION OF SOCIODEMOGRAPHIC
CHARACTERISTICS AND DISEASE SEVERITY**

Timothy Mayotte*, Rafid Farjo, Alex Zmejcoski, Krystal Kao, Jessica Stout, Chris A Andrews, David M Fresco, Maria Fernanda Abalem, **K Thiran Jayasundera**

**AUTOMATED CORNEAL NERVE ANALYSIS AND MACHINE
LEARNING FOR IDENTIFYING GULF WAR ILLNESS**

Rohit Muralidhar*, Pragnya Donthineni, Chloe Shields, Wade Munger, **Anat Galor**

**CONTRIBUTIONS AND LEGACIES OF SELECTED BLACK
PIONEERS IN OPHTHALMOLOGY AND INSTITUTIONAL
MILESTONES**

Mildred MG Olivier*, Eydie Miller-Ellis, **Bronwyn Bateman**, Claude Cowan

**TOLERANCE TO INDUCED ASTIGMATISM AMONGST
VARIOUS INTRAOCULAR LENSES CATEGORIES**

Munjal Pandya*, **Karolinne Rocha**, Rupal Trivedi, Hugo Borges, Aline Hagui, Marcela Barros, Elena Wilson

**ASSESSMENT OF DEMOGRAPHIC DETERMINANTS OF
ISOLATED ORBITAL FRACTURES**

Viana Phan*, Aaron Shi, **Timothy McCulley**, Ying Chen

**ASSESSMENT OF THE INCIDENCE OF CELLULITIS
FOLLOWING ISOLATED ORBITAL FRACTURES AND THE
UTILITY OF ANTIBIOTIC PROPHYLAXIS**

Viana Phan*, Marina Shenouda, **Timothy McCulley**, Ying Chen

**A NOVEL GRHL2 INTRONIC VARIANT IN FAMILIAL
POSTERIOR POLYMORPHOUS CORNEAL DYSTROPHY
(PPCD): CLINICAL, HISTOPATHOLOGICAL, AND GENETIC
INSIGHTS ACROSS GENERATIONS**

Muralidhar Ramappa*, **Deepak Edward**, Sunita Chaurasia, Anshuman Verma, Anthony Aldave

**PREVALENCE, DEMOGRAPHICS, AND CLINICAL
CHARACTERISTICS OF CORNEA PLANA: INSIGHTS FROM A
SINGLE-CENTRIC STUDY IN INDIA**

Muralidhar Ramappa*, **Deepak Edward**, Sunita Chaurasia

**SELECTIVE ENDOTHELIALECTOMY IN PETERS ANOMALY
(SEPA): A PROSPECTIVE CLINICAL TRIAL**

Muralidhar Ramappa*, **Deepak Edward**, Sunita Chaurasia

**SCREENING FOR AUTISM SPECTRUM DISORDER IN
CHILDREN AND ADOLESCENTS WITH LEBER'S CONGENITAL
AMAUROSIS**

Juliana Sallum*, Marina Pellissari, Luiz Renato Carreiro, Cecília Vasconcellos

**IS AUTONOMIC DYSFUNCTION A CONTRIBUTOR TO
SYMPTOMS OF AUTOIMMUNE ASSOCIATED DRY EYE?**

Chloe Shields*, Pragnya Donthineni, Lora Parchejo, Shreya Bhatt, Sakina Qazi, Rohit Muralidhar, Elizabeth Felix, Leonardo Tamariz, **Anat Galor**



Jayne S. Weiss, MD, Emily Y. Chew, MD, and Julia A. Haller, MD



David K. Wallace, MD and Amy Childress, JD, MHA



Carol L. Shields, MD, Charlotte Nelle Shields, MD, Deena Gu Laties, Johanna M. Seddon, MD, ScM, FARVO, FASRS, Ralph W. Hingson, ScP, MPH, Mary Ann Thompson, and John T. Thompson, MD

ARE AGE-RELATED MACULAR DEGENERATION SNPs GENE MODIFIERS OF NORTH CAROLINA MACULAR DYSTROPHY'S VARIABLE EXPRESSIVITY?

Kent Small*, Amber Diaz, Jessica Avetisjan, Fadi Shaya, Monique Leys, Thomas Rice, **Richard Lewis**, Bernard Puech, Brent Zanke

HIGH CONCORDANCE BETWEEN WIDE-ANGLE FLUORESCEIN ANGIOGRAPHY-BASED CLINICAL DIAGNOSIS AND POSITIVE GENETIC TESTING IN FAMILIAL EXUDATIVE VITREORETINOPATHY

Brian Soetikno*, **Mary Elizabeth Hartnett**, Emily Spoth

IMPACT OF DIRECT SCHEDULING BY ENDOCRINOLOGY STAFF ON OPHTHALMOLOGY APPOINTMENT OUTCOMES AND EYE HEALTH IN ARTIFICIAL INTELLIGENCE-ASSISTED DIABETIC RETINOPATHY SCREENING

Amy Song*, Cameron Beversluis, Patricia Bai, Nylani Alicea, Yuval Eisenberg, Brian Layden, Angelica Scanzera, Hugh Musick, **R.V. Paul Chan**

ACCESS TO HEALTHCARE AND INCIDENCE OF INCISIONAL GLAUCOMA SURGERY IN CALIFORNIA MEDICARE BENEFICIARIES WITH GLAUCOMA

Victoria Tseng*, Ken Kitayama, Fei Yu, **Anne Coleman**

FORWARD GENETIC PIPELINE IDENTIFIES NON-REDUNDANT ROLES FOR GENES IN RETINAL HOMEOSTASIS

Rafael Ufret-Vincenty*, Dogan-Can Kirman, Bogale Aredo, Seher Yuksel, Yeshumenesh Zegeye, Gizem Ulker-Yilmazer, Emily Turpin, Sangita Shrestha, Sara Ludwig, Eva-M-Y Moresco, Yu-Guang He, Bruce Beutler

CATARACT SURGERY SAFETY OUTCOMES FOLLOWING IMPLEMENTATION OF A STANDARD OPERATING PROCEDURE

Jennifer Weizer*, Joshua Ong, **Joshua Stein**

A SUSTAINED RELEASE INTRACANALICULAR DEXAMETHASONE INSERT FOR THE TREATMENT OF OCULAR INFLAMMATION AFTER PEDIATRIC INTRAOCULAR SURGERY ACROSS ALL AGE GROUPS

M. Edward Wilson*, Nallely Morales

TOPICAL LOSARTAN TREATMENT OF CORNEAL SCARRING IN HSV OR VZV KERATITIS

Steven Wilson*, Barbara Dutra, Drew-Bear Laura, Samantha Herretes, Danielle Arroyo, Rodrigo de Oliveira, Lycia Sampaio, Marcony Santhiago

REGISTERED MEMBERS OF THE ANNUAL MEETING

Richard L. Abbott, MD	Active Member
Nisha R. Acharya, MD, MS	Active Member
Ron A. Adelman, MD, MPH, MBA	Active Member
Esen K. Akpek, MD	Active Member
Eduardo C. Alfonso, MD	Active Member
Renato Ambrósio Jr., MD, PhD	Active Member
J. Fernando Arevalo, MD, PhD, FACS	Active Member
Francesco F. Bandello, MD, FEBO	Active Member
J. Bronwyn Bateman, MD	Active Member
Valerie L. Biousse, MD	Active Member
Bradley C. Black, MD	Emeritus Member
Preston H. Blomquist, MD	Active Member
James C. Bobrow, MD	Active Member
Michael C. Brodsky, MD	Emeritus Member
Edward G. Buckley, MD	Active Member
Donald L. Budenz, MD, MPH	Active Member
John D. Bullock, MD, MS, MPH	Emeritus Member
Clement K. Chan, MD, FACS	Active Member
R.V. Paul Chan, MD, MSc, MBA, FACS	Active Member
Ta Chen Peter Chang, MD	Active Member
John J. Chen, MD, PhD	Active Member
Emily Y. Chew, MD	Active Member
Anne L. Coleman, MD, PhD	Active Member
Zelia M. Correa, MD, PhD	Active Member
John Danias, MD, PhD	Active Member
Raymond S. Douglas, MD, PhD	Active Member
Jacque L. Duncan, MD	Active Member
Ralph C. Eagle Jr., MD	Active Member
Deepak P. Edward, MD	Active Member
Susan G. Elner, MD	Active Member
Victor M. Elner, MD, PhD	Emeritus Member
John H. Fingert, MD, PhD	Active Member
Gary E. Fish, MD	Active Member
Christina J. Flaxel, MD	Active Member
Tamara R. Fountain, MD	Active Member
Thomas D. France, MD	Emeritus Member
Peter J. Francis, MD, PhD	Active Member
Frederick T. Fraunfelder, MD	Emeritus Member
Frederick W. Fraunfelder, MD	Active Member
Anat Galor, MD, MSPH	Active Member
David M. Gamm, MD, PhD	Active Member
Steven J. Gedde, MD	Active Member
Fatema F. Ghasia, MD	Active Member
M. Gilbert Grand, MD	Emeritus Member
Hans E. Grossniklaus, MD, MBA	Active Member
Neeru Gupta, MD, PhD, MBA, FRCSC	Active Member
Dean P. Hainsworth, MD	Active Member
Julia A. Haller, MD	Active Member
Dennis P. Han, MD	Active Member
Anne M. Hanneken, MD	Active Member
J. William Harbour, MD	Active Member
Mary Elizabeth Hartnett, MD	Active Member
Peter S. Hersh, MD	Active Member
David Huang, MD, PhD	Active Member
K. Thiran Jayasundera, MD, MS, FACS, FRCSC, FRANZCO	Active Member
Ula V. Jurkunas, MD	Active Member
Carol L. Karp, MD	Active Member
Shalesh Kaushal, MD, PhD	Active Member
Ivana K. Kim, MD	Active Member
Judy E. Kim, MD	Active Member
Shigeru Kinoshita, MD	Active Member
Douglas D. Koch, MD	Active Member
Rachel W. Kuchtey, MD, PhD	Active Member
Byron L. Lam, MD	Active Member
Christopher T. Leffler, MD	Active Member
Alex V. Levin, MD, MHSc, FRCSC	Active Member
Paul R. Lichten, MD	Emeritus Member
Jennifer I. Lim, MD	Active Member
Walter Lisch, MD	Active Member
Irene H. Ludwig, MD	Emeritus Member
Gregg T. Lueder, MD	Active Member
George N. Magrath, MD, MBA, MS	Active Member
Ronald Mancini, MD, FACS	Active Member
Irene H. Maumenee, MD	Emeritus Member
Timothy J. McCullley, MD	Active Member
Marguerite McDonald, MD	Active Member
Stephen D. McLeod, MD	Active Member
Marilyn B. Mets, MD	Emeritus Member
William F. Mieler, MD	Active Member

Tatyana Milman, MD.....	Active Member	Kent W. Small, MD	Emeritus Member
Peter A. Netland, MD, PhD.....	Active Member	Alfred Sommer, MD.....	Emeritus Member
Quan D. Nguyen, MD, MSc.....	Active Member	Eric H. Souied, MD, PhD.....	Active Member
Joan M. O'Brien, MD.....	Active Member	David Stager Jr., MD, FACS	Active Member
Mildred M.G. Olivier, MD, FACS.....	Active Member	Joshua D. Stein, MD, MS	Active Member
Timothy W. Olsen, MD.....	Active Member	Michael W. Stewart, MD	Active Member
David W. Parke II, MD.....	Active Member	Edwin M. Stone, MD, PhD.....	Active Member
Louis R. Pasquale, MD	Active Member	J. Timothy Stout, MD, PhD, MBA.....	Active Member
Victor L. Perez Quinones, MD	Active Member	John T. Thompson, MD	Active Member
Christopher J. Rapuano, MD.....	Active Member	R. Lawrence Tychsen, MD.....	Active Member
Alan L. Robin, MD	Emeritus Member	Rafael L. Ufret-Vincenty, MD	Active Member
Karolinne M. Rocha, MD, PhD.....	Active Member	Russell N. Van Gelder, MD, PhD.....	Active Member
Robert H. Rosa Jr., MD	Active Member	Fredericus van Kuijk, MD, PhD.....	Active Member
Richard B. Rosen, MD.....	Active Member	Woodford S. Van Meter, MD.....	Active Member
Paul E. Runge, MD	Active Member	Deborah K. VanderVeen, MD.....	Active Member
Juliana Maria F. Sallum, MD, PhD	Active Member	Nicholas J. Volpe, MD	Active Member
Hermann D. Schubert, MD	Active Member	David K. Wallace, MD, MPH.....	Active Member
Joel S. Schuman, MD, FACS	Active Member	Jayne S. Weiss, MD.....	Active Member
Ingrid U. Scott, MD, MPH.....	Active Member	Charles P. Wilkinson, MD.....	Emeritus Member
Jonathan E. Sears, MD.....	Active Member	David J. Wilson, MD	Active Member
Johanna M. Seddon, MD, ScM, FARVO, FASRS.....	Active Member	M. Roy Wilson, MD, MS	Active Member
Bhavna P. Sheth, MD, MBA.....	Active Member	Steven E. Wilson, MD	Emeritus Member
Carol L. Shields, MD.....	Active Member	M. Edward Wilson Jr., MD	Active Member
Roni M. Shtein, MD	Active Member	Edward J. Wladis, MD, FACS.....	Active Member
Rona Z. Silkiss, MD, FACS	Active Member	Tien Yin Wong, MBBS, PhD.....	Active Member
Michael A. Singer, MD.....	Active Member	Terri L. Young, MD, MBA.....	Active Member
Gregory L. Skuta, MD.....	Active Member		

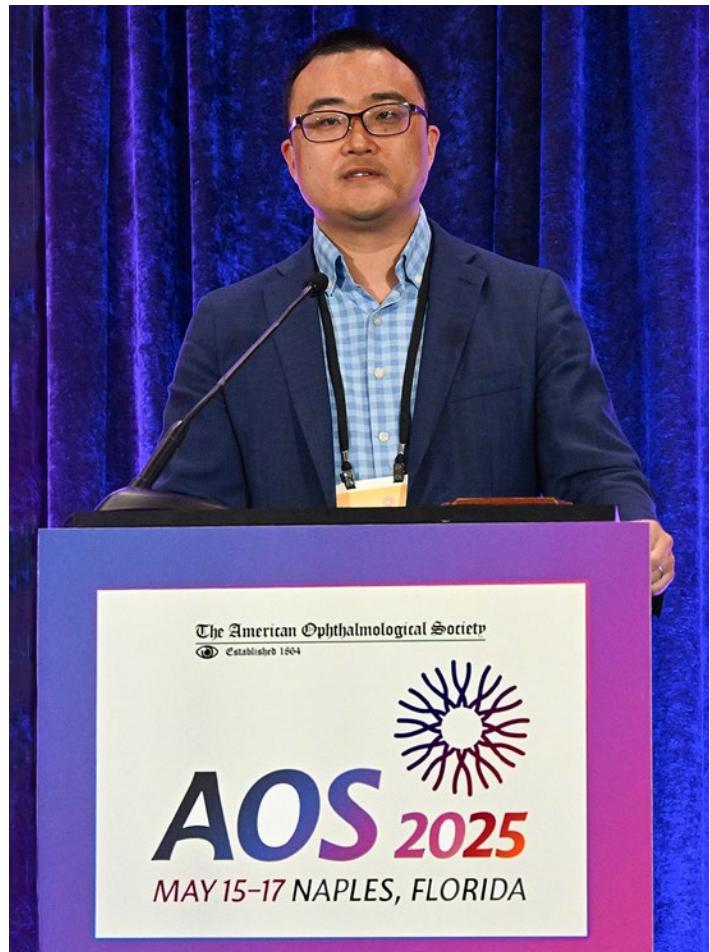


AOS Reception

NAMED LECTURES

FREDERICK H. VERHOEFF LECTURERS

1961	DR. ARTHUR J. BEDELL	2022	KRISTIN E. LAUTER
1964	SIR STEWART DUKE-EDLER		<i>From Academia to Social Media: My Journey into Artificial Intelligence and Machine Learning</i>
1969	DR. DAVID G. COGAN	2025	DR. AARON Y. LEE
1971	DR. LORENZ E. ZIMMERMAN		<i>The Transformative Role of Deep Learning in Ophthalmology and Vision Science</i>
1973	DR. IRVING H. LEOPOLD		
1975	DR. ARTHUR GERARD DEVOE		
1977	PROF. JULES FRANCOIS		
1979	DR. SAIICHI MISHIMA		
1983	DR. RICHARD W. YOUNG		
1989	DR. FREDERICK C. BLODI		
1992	DR. FRANCIS I. COLLINS		
1993	DR. JORAM PIATIGORSKY		
1997	DR. GEOFFREY ARDEN		
2002	DR. PAUL SIEVING <i>How Many Photoreceptors Do We Need for Vision?</i>		
2003	DR. THADDEUS P. DRYJA <i>How Molecular Genetics is Lifting the Fog: The Etiology of Retinitis Pigmentosa</i>		
2010	DR. ADRIAN GLASSER <i>Physiology of Accommodation and Pathogenesis of Presbyopia</i>		
2013	DR. ALFRED SOMMER <i>Preventing Blindness & Child Mortality with Vitamin A: an AOS Odyssey</i>		
2014	DR. TIMOTHY STOUT <i>The Rocky Road to Successful Human Gene Therapy</i>		
2019	DR. MICHAEL TRESE <i>A New Approach to VEGF Driven Retinal Vascular Leakage in Inherited and Acquired Retinal Vascular Disease</i>		
		2022	KRISTIN E. LAUTER
			<i>From Academia to Social Media: My Journey into Artificial Intelligence and Machine Learning</i>
		2025	DR. AARON Y. LEE
			<i>The Transformative Role of Deep Learning in Ophthalmology and Vision Science</i>



Aaron Y. Lee, MD, 2025 Frederick H. Verhoeff Lecturer

FREDERICK C. BLODI LECTURERS

2015	DR. TIMOTHY W. OLSEN (Inaugural) <i>The Age-related Macular Degeneration Complex: Linking Epidemiology and Histopathology Using the Minnesota Grading System</i>	2016	DR. ELIAS I. TRABOULSI <i>Zonules and Molecules: The Underlying Pathophysiology of Ectopia Lentis</i>
		2017	DR. JOSEPH CAPRIOLI <i>Retinal Ganglion Cell Rescue in Glaucoma</i>

MARILYN T. MILLER LECTURERS

2021	DR. ANTHONY FAUCI (Inaugural) <i>COVID-19 in 2021: Lessons Learned and Remaining Challenges</i>
2022	DR. MICHAEL F. CHIANG <i>NEI: Past, Present, and Future</i>
2023	DR. JEAN BENNETT <i>Gene Therapy for Retinal Degenerations – Where Do We Stand Now?</i>
2024	DR. GEORGE B. BARTLEY <i>Equity and Equal Opportunity: Finding Balance in Ophthalmology</i>
2025	DR. DAVID W. PARKE, II <i>Corporatization of Ophthalmology – Drivers and Implications</i>



David W. Parke, II, MD, 2025 Marilyn T. Miller Lecturer

MEDAL RECIPIENTS

RECIPIENTS OF THE LUCIEN HOWE MEDAL

1922	DR. CARL KOLLER, New York, NY	1961	DR. FREDERICK C. CORDES, San Francisco, CA
1923	DR. ALEXANDER DUANE, New York, NY	1962	DR. FRANK B. WALSH, Baltimore, MD
1924	DR ERNEST FUCHS, Vienna, Austria	1963	DR. EDWIN B. DUNPHY, Boston, MA
1925	NO AWARD	1964	DR. WILLIAM L. BENEDICT, Rochester, MN
1926	DR. EDWARD JACKSON, Denver, CO	1965	DR. DAVID G. COGAN, Boston, MA
1927	MR. PRIESTLY SMITH, Birmingham, England	1966	DR. DOHRMANN K. PISCHEL, San Francisco, CA
1928	NO AWARD	1967	DR. PAUL A. CHANDLER, Boston, MA
1929	DR. THEODOR AXENFELD, Freiburg, Germany	1968	DR. WALTER MORTON GRANT, Boston, MA
1930	NO AWARD	1969	DR. A. EDWARD MAUMENE, Baltimore, MD
1931	NO AWARD	1970	DR. PETER C. KRONFELD, Chicago, IL
1932	DR. F. H. VERHOEFF, Boston, MA	1971	DR. C. WILBUR RUCKER, Rochester, MN
1933	NO AWARD	1972	DR. WALTER S. ATKINSON, Watertown, NY
1934	DR. GEORGE E. DE SCHWEINITZ, Philadelphia, PA	1973	DR. GORDON M. BRUCE, Fort Lee, NJ
1935	NO AWARD	1974	DR. IRVING H. LEOPOLD, New York, NY
1936	SIR JOHN HERBERT PARSONS, London, England	1975	DR. MICHAEL J. HOGAN, San Francisco, CA
1937	DR. ARNOLD KNAPP, New York, NY	1976	DR. EDWARD W. D. NORTON, Miami, FL
1938	NO AWARD	1977	DR. KENNETH C. SWAN, Portland, OR
1939	NO AWARD	1978	DR. S. RODMAN IRVINE, Newport Beach, CA
1940	NO AWARD	1979	DR. FRANK W. NEWELL, Chicago, IL
1941	NO AWARD	1980	DR. FREDERICK C. BLODI, Iowa City, IA
1942	DR. E. V. L. BROWN, Chicago, IL	1981	DR. DAVID O. HARRINGTON, San Francisco, CA
1943	NO AWARD	1982	DR. ARTHUR GERARD DEVOE, New York, NY
1944	NO AWARD	1983	DR. J. DONALD M. GASS, Miami, FL
1945	DR. WALTER B. LANCASTER, Boston, MA	1984	DR. HAROLD G. SCHEIE, Philadelphia, PA
1946	SIR STEWART DUKE-ELDER, London, England	1985	DR. ROBERT N. SHAFFER, San Francisco, CA
1947	DR. LAWRENCE T. POST, St Louis, MO	1986	DR. ROBERT W. HOLLENHORST, Rochester, MN
1948	DR. WILLIAM ZENTMAYER, Philadelphia, PA	1987	DR. DUPONT GUERRY III, Richmond, VA
1949	DR. PHILLIPS THYGESON, San Jose, CA	1988	DR. THOMAS D. DUANE, Philadelphia, PA
1950	DR. ALGERNON B. REESE, New York, NY	1989	DR. MARSHALL M. PARKS, Washington, DC
1951	DR. JONAS S. FRIEDENWALD, Baltimore, MD	1990	DR. DAVID SHOCH, Chicago, IL
1952	DR. FRANCIS H. ADLER, Philadelphia, PA	1991	DR. ARNALL PATZ, Baltimore, MD
1953	DR. ALAN C. WOODS, Baltimore, MD	1992	DR. BRADLEY R. STRAATSMA, Los Angeles, CA
1954	DR. JOHN H. DUNNINGTON, New York, NY	1993	DR. BRUCE E. SPIVEY, San Francisco, CA
1955	DR. ARTHUR J. BEDELL, Albany, NY	1994	DR. THOMAS P. KEARNS, Rochester, MN
1956	DR. BERNARD SAMUELS, New York, NY	1995	DR. WILLIAM H. SPENCER, San Francisco, CA
1957	DR. GEORGIANA DVORAK-THEOBALD, Oak Park, IL	1996	DR. ROBERT MACHEMER, Durham, NC
1958	DR. IDA C. MANN, Nedlands, Western Australia	1997	DR. W. RICHARD GREEN, Baltimore, MD
1959	DR. LUDWIG VON SALLMANN, Bethesda, MD	1998	DR. ALAN B. SCOTT, San Francisco, CA
1960	DR. DERRICK T. VAIL, Chicago, IL	1999	DR. LORENZ E. ZIMMERMAN, Washington, DC

2000 DR. WILLIAM S. TASMAN, Philadelphia, PA
2001 DR. STANLEY M. TRUHLSEN, Omaha, NE
2002 DR. CROWELL BEARD, San Jose, CA
2003 DR. ALFRED SOMMER, Baltimore, MD
2004 DR. ARTHUR JAMPOLSKY, Belvedere, CA
2005 DR. STEPHEN J. RYAN, Los Angeles, CA
2006 DR. MATTHEW D. DAVIS, Madison, WI
2007 DR. DANIEL M. ALBERT, Madison, WI
2008 DR. PAUL R. LICHTER, Ann Arbor, MI
2009 DR. DENIS O'DAY, Nashville, TN

2010 DR. MARILYN T. MILLER, Chicago, IL
2011 DR. ROBERT R. WALLER, Memphis, TN
2012 DR. HUGH R. TAYLOR, Carlton, Australia
2013 DR. DAN B. JONES, Bellaire, TX
2014 DR. MORTON F. GOLDBERG, Baltimore, MD
2015 DR. JOHN G. CLARKSON, Miami, FL
2016 DR. SUSAN H. DAY, Chicago, IL
2017 DR. GEORGE L. SPAETH, Philadelphia, PA
2018 DR. JOAN MILLER, Winchester, MA
2019 DR. JERRY A. SHIELDS, Philadelphia, PA

RECIPIENTS OF THE AOS MEDAL

2020..... NO AWARD
2021..... DR. PETER R. LAIBSON, Philadelphia, PA
2022..... DR. EMILY Y. CHEW, Bethesda, MD

2023..... DR. EVANGELOS S. GRAGOUDAS, Cambridge, MA
2024..... DR. GEORGE B. BARTLEY, St. Simons Island, GA
2025..... DR. CAROL L. SHIELDS, Philadelphia, PA



The Shields Family



AOS Medal

2025 THESES PUBLISHED IN THE AJO

Hilda Capó, MD

INFLUENCE OF AGE AND UNDERLYING ETIOLOGIES ON OUTCOMES OF STRABISMUS SURGERY IN THE ELDERLY POPULATION

Alex Huang, MD, PhD

ARTIFICIAL INTELLIGENCE DEEP LEARNING MODELS TO PREDICT SPACEFLIGHT ASSOCIATED NEURO-OCULAR SYNDROME

George N. Magrath, MD

USE OF A CONVOLUTIONAL NEURAL NETWORK TO PREDICT THE RESPONSE OF DIABETIC MACULAR EDEMA TO INTRAVITREAL ANTI-VEGF TREATMENT: A PILOT STUDY

Edoardo A. Midena, MD, PhD

NEUROFIBROMATOSIS TYPE 1 (NF1)-RELATED OCULAR SIGNS: NEW INSIGHTS ON THEIR PREVALENCE, INCIDENCE, AND GENOTYPE-PHENOTYPE CORRELATION IN NF1 CHILDREN

Mark E. Pennesi, MD, PhD

DEVELOPMENT AND VALIDATION OF A COMMERCIALLY AVAILABLE TWO COLOR DARK ADAPTED PERIMETRY TO ASSESS INHERITED RETINAL DEGENERATIONS

J. Bradley B. Randleman, MD

THREE-DIMENSIONAL MECHANICAL CHARACTERIZATION OF NORMAL, SUBCLINICAL, AND KERATOCONIC CORNEAS USING MOTION TRACKING BRILLOUIN MICROSCOPY

Matthew P. Simunovic, MB BChir PhD FRANZCO

THE 1-STEP VERSUS 2-STEP SUBRETINAL INJECTION TRIAL (1,2-SIT)—A RANDOMIZED CONTROLLED TRIAL TO COMPARE DRUG REFLUX FOLLOWING SUBRETINAL INJECTION



Cynthia S. Tung, MD, MPH and David Huang, MD, PhD



Christopher J. Rapuano, MD and Sara Rapuano

REPORTS

REPORT FROM THE EXECUTIVE VICE PRESIDENT AND EDITOR

DAVID J. WILSON, MD

EXECUTIVE VICE PRESIDENT REPORT

Following the 2024 Annual Meeting, the AOS Council met in Washington, DC on November 2, 2024. The Council reviewed the comments from the 2024 Annual Meeting and initiated conversations on future meeting sites and topics. The Council endorsed providing Council Comments to accompany the Knapp Symposium, and recommended review of these comments by outside knowledge experts. Those comments appeared with the digital presentation of the lectures in the 2024 Transactions. In addition, the plans for the 2025 AOS Annual Meeting Program were discussed and finalized. The next Fall Council Meeting will be held in Nashville, TN on November 14-15, 2025.

The AOS financials remain healthy and continue to support the Society functions, including an annual expenditure of \$250,000 to support the Annual Meeting.

The AOS currently has 230 Active members and 172 Emeritus members. This year we have a robust number of candidates – 20.

The AOS continues with several programs to support activities in line with the AOS mission. The Annual Meeting Travel Grants are used to engage with young ophthalmologists to make them aware of the Society and gauge their interest and suitability

for membership. The AOS provides funds to support the Heed Resident Retreat, The AAO/AUPO VISION Mentoring Program, and has provided funds to support the AAO Museum of the Eye. The AOS also teams with the ABO to present a symposium at the AAO Annual Meeting. This year's symposium is titled: *What You Need to Know from the Past Year's Literature*.

EDITOR'S REPORT

This year there were 8 theses accepted by the AOS Committee on Theses. The acceptance of a candidate's thesis is the final step in the application process for the AOS. The accepted theses will be published in the special edition of the *American Journal of Ophthalmology*. The AOS Committee on Theses reviews the theses and serves as the editorial board for the Transactions. In addition to the review of the full thesis, committee members provide detailed evaluation of thesis proposals, and work with candidates through the process of thesis preparation. With the increase in submitted theses, the workload for the Committee on Theses has increased substantially. Through a Bylaws Change, the AOS is proceeding with an increase in the number of Thesis Committee members so that each thesis can receive a thorough and fair review.



David J. Wilson, MD

REPORT FROM THE COUNCIL CHAIR

EMILY Y. CHEW, MD

The 161st Annual Meeting of the American Ophthalmological Society was held May 15 – 17, 2025, in Naples, Florida, at the Ritz-Carlton, Naples. The venue was lovely, and the weather cooperated for excellent recreational events, which included pickleball and golf. The Ritz-Carlton property and its surroundings allowed for long walks along the beautiful, sandy beach.

We welcomed our new members to the Society at the New Member Luncheon, and they were formally introduced on the Thursday of the meeting. A reception welcoming the new members followed the first scientific paper session that day. Following the 2024 Annual Meeting, eight new member theses were approved.

On Friday morning, **David W. Parke, II, MD** presented the Marilyn Miller Lecture entitled, “Corporatization of Ophthalmology – Drivers and Implications.” This lecture will be made available for public viewing on the AOS website. This was followed by the Hermann Knapp Symposium, which was entitled, “Economic Factors Affecting Ophthalmologic Practices Today.” **David C. Herman, MD** spoke on economics and the effects of private equity on healthcare, **Anne L. Coleman, MD, PhD** on external forces impacting the trainees, **Paul R. Lichten, MD** on maintaining ethics in a changing environment, and **Stephen D. McLeod, MD** on labor/physicians as employees. The morning concluded with poster and paper sessions.

On Saturday, **Aaron Y. Lee, MD, MS** gave the AOS 2025 Frederick H. Verhoeff Lecture, entitled, “The Transformative Role of Deep Learning in Ophthalmology and Vision Science.” His lecture will also be made publicly accessible through the AOS website. The Saturday Symposium followed, “Artificial Intelligence (AI) and its Impact on Ophthalmology / Medicine” with the following speakers: **Russell N. Van Gelder, MD, PhD** speaking on automating academia, the uses and abuses of AI in ophthalmic literature, **Judy E. Kim, MD** on AI for diabetic retinopathy, **Jennifer I. Lim, MD** on AI for age-related macular degeneration, **Joel S. Schuman, MD, FACS** on AI for glaucoma and **Tien Y. Wong MD, PhD** on AI for systemic diseases. This was again followed by paper and poster session that concluded the meeting. Of the 59 abstracts submitted, 18 abstracts were accepted as

papers, 41 abstracts were invited as poster presentations and 35 posters were eventually presented during the meeting. We are very grateful for the excellent work of the Committee on Programs, chaired by **Carol L. Karp, MD**, in putting together an outstanding scientific program. The presentations were excellent with broad coverage of the different subspecialties, and they generated great discussion among the speakers and the audience.

The Executive Session, which began on Saturday morning and reconvened at the evening’s formal Gala Banquet, had a surprise presentation for the AOS Council’s Special Award for the tireless and creative efforts of **Ralph C. Eagle, Jr, MD**, our perpetual archivist. The evening culminated with the presentation of the AOS Medal to **Carol L. Shields, MD** (whose family surprised her). The final act of the evening was the passing of the President’s gavel from **Julia A. Haller, MD** to **William F. Mieler, MD**.

AOS COUNCIL ACTIVITY

It has truly been a privilege and honor to serve this great organization with my fellow council members: **David K. Wallace, MD, MPH**, **Mary Elizabeth Hartnett, MD**, **Peter A. Netland, MD, PhD**, and **Jayne S. Weiss, MD**. We met with our President, **Julia A Haller, MD** and our Executive Vice President and Editor for *Transactions of the AOS*, **David J. Wilson, MD**, throughout the year to conduct the business of the society. I was delighted to host our meeting in November 2024 in Washington, DC to prepare for our annual meeting. Unfortunately, the timing did not work out to hold our usual educational session for the trainees in our local area.

AOS MEMBERSHIP

Members of our Society and especially the new members of the Society, are the backbone of our organization, so all the members of the Society are encouraged to nominate eligible applicants for AOS membership. New member theses are published in the *American Journal of Ophthalmology* (a big thank you to **Richard K. Parrish, II, MD**, Editor of the AJO, for his incredibly generous offer and continued support). There are currently about 230 Active members and approximately 172 Emeritus members in our Society.

SPECIAL THANKS

I am very honored to have served as Chair of the Council this past year. I would like to thank all the members of the Council for their dedication to the Society and to our president, **Julia A. Haller, MD** and **EVP David J. Wilson, MD** for their leadership and warm collaboration. This organization draws its strength from its members who have contributed a great deal to the Society and to the vision community in general. We are delighted to have the leaders of our profession as members, and more important, we, no doubt, have many of the future leaders of Ophthalmology among us. They will continue to elevate our society in the future in many aspects. The Society will continue to thrive under the leadership of our EVP **David J. Wilson, MD**, incoming President **William F. Miller, MD** and new Council Chair **David K. Wallace, MD**, with **J. Timothy Stout, MD, PhD, MBA** joining the Council.

The AOS is an organization that runs extremely well, thanks to Amber Mendez, Alissa Evans, and Shirley Chan. They have provided outstanding organizational support for our Society. It is a pleasure to work with these immensely talented, wonderful, and dedicated people.

I hope to see everyone at the 162nd Annual Meeting in Santa Fe, New Mexico, on May 21 – 23, 2026. Wishing everyone a wonderful year until we meet again. In the meanwhile, we will continue with the core mission of the AOS to promote excellence in patient care, education, research, and to advance both the art and THE SCIENCE of ophthalmology.



2025 AOS Council: Peter A. Netland, MD, PhD, Mary Elizabeth Hartnett, MD, Jayne S. Weiss, MD, Emily Y. Chew, MD, Julia A. Haller, MD, David J. Wilson, MD, and David K. Wallace, MD, MPH

REPORT FROM THE COMMITTEE ON THESES

JANEY L. WIGGS, MD, PhD

This year the Committee on Theses continued to review theses through the online AJO editorial platform. For thesis resubmissions, efforts were made to solicit re-review from the same reviewers providing initial comments. Reviewers were primarily members of the AOS Committee on Theses, and if needed for special expertise, other AOS members. Extensive comments on proposals were provided to help to obtain a more likely acceptance of the theses themselves, and a tracking system was developed to encourage candidates to respond in a timely manner.

At the time of the 2025 Annual Meeting, decisions were made on 8 thesis submissions, with most having had at least one revision. 23 thesis proposals were reviewed and approved, with most also requiring at least one revision.

Sincere thanks go to the reviewers and especially to fellow committee members, **David Huang, MD, PhD** and **David Sarraf MD**, for their insightful comments and reviews as well as, Amber Mendez, Alissa Evans, Shirley Chan and **David J. Wilson, MD** (Managing Editor) for their guidance and administrative support.

REPORT FROM THE COMMITTEE ON PROGRAMS

CAROL L. KARP, MD

The 161st Annual Meeting of the American Ophthalmological Society (AOS), held at the Ritz-Carlton in Naples, Florida. The program opened with the New Member Spotlight Presentations on the afternoon of May 15 and concluded with a wonderful banquet and AOS Medal ceremony on the evening of May 17, 2025. The membership actively engaged in every aspect of the meeting. I had the privilege of presiding as the Chair of the Committee on Programs. My fellow Program Committee members included **Drs. M. Roy Wilson, Peter S. Hersh, and Anne Hanneken**. In addition, the AOS Council and Council Chair, **Dr. Emily Chew**, provided valuable input and guidance throughout the planning process. She was a wonderful partner for me in the development of the program.

The Committee on Programs carefully reviewed each of the 59 abstracts submitted for consideration. Abstracts were chosen based on novelty, general interest, clinical



Carol L. Karp, MD

value, and diversity of topic and presenter. All abstracts were ranked and discussed in a virtual meeting. Eighteen of the highest-rated abstracts were selected as paper presentations, while 41 were invited as poster presentations. Six poster presenters declined to participate. For the paper sessions, suggested discussants were reviewed and, when necessary, alternate discussants were selected to ensure robust and balanced discussion.

The scientific program consisted of 18 papers and 35 posters, which were available in both the printed program and online. The paper sessions were divided into three sessions across the meeting, with each presenter allowed 7 minutes, each discussant 3 minutes, followed by 9 minutes of audience discussion. Audience participation was enthusiastic, leading to lively and informative exchanges. To further enhance interaction, a new feature—“Meet the Speakers”—was introduced this year, providing additional

time for audience members to engage directly with presenters.

Poster sessions were organized by topic and presented in two guided sessions, moderated by members of the Committee on Programs.

Presenters delivered short summaries of their research at electronic poster stations, followed by questions and discussion. These sessions were well attended and enriched the overall meeting experience.

In accordance with ACGME guidelines, only presenting authors were required to disclose relevant financial relationships. A total of 13.25 CME hours were offered for the 2025 program.

Highlights of the 161st Annual Meeting included the Hermann Knapp Symposium: *Economic Factors Affecting Ophthalmologic Practices Today*, featured distinguished speakers:

- Dr. David C. Herman on the impact of private equity on healthcare
- **Dr. Anne L. Coleman** on external forces affecting trainees
- **Dr. Paul R. Licher** on maintaining ethics in a changing environment
- **Dr. Stephen D. McLeod** on physicians as employees and labor considerations

The Marilyn T. Miller Lecture, *Corporatization of Ophthalmology – Drivers and Implications*, was delivered by **Dr. David W. Parke II**. This lecture continued the tradition of exploring critical themes in the profession, following a distinguished line of previous Miller Lecturers.

The Saturday Symposium, *Artificial Intelligence (AI) and Its Impact on Ophthalmology / Medicine*, featured expert presentations by:

- **Dr. Russell N. Van Gelder** on AI and academic literature
- **Dr. Judy E. Kim** on AI for diabetic retinopathy
- **Dr. Jennifer I. Lim** on AI for age-related macular degeneration



General Session

- **Dr. Joel S. Schuman** on AI for glaucoma
- **Dr. Tien Y. Wong** on AI for systemic diseases

The Frederick H. Verhoeff Lecture, The Transformative Role of Deep Learning in Ophthalmology and Vision Science, was delivered by Dr. Aaron Y. Lee, honoring the legacy of Dr. Frederick Verhoeff.

On behalf of the Committee on Programs, I thank my colleagues **Drs. M. Roy Wilson, Peter S. Hersh, and Anne Hanneken**, as well as **Dr. Emily Chew** and the AOS Council, for their dedication and thoughtful contributions. I am also grateful to Ms. Amber Mendez and Ms. Alissa Evans for their exceptional administrative support and commitment to making the program a tremendous success. They are truly the “anchors” of our program.

On a lighter note, I heard wonderful feedback on the venue. It was greatly enjoyed by all. Additionally, there was no snow.

It has been my distinct honor to serve as the Chair of the Committee on Programs. I look forward with great anticipation to the 162nd Annual Meeting of the Society, scheduled for May 2026.

REPORT FROM THE COMMITTEE ON MEMBERSHIP

NICHOLAS J. VOLPE, MD

The Committee on Membership (**Nicholas J. Volpe, MD, Michele C. Lim, MD, Tamara R. Fountain, MD, and Russell N. Van Gelder, MD, PhD**) independently reviewed 15 membership applications during the summer of 2024.

The committee met virtually on Monday, September 23, 2024, to discuss each candidate. A report was presented to the AOS Council for review and discussion on Saturday, November 2, 2024. Following this review, fifteen (15) applicants were invited to write a thesis for membership.

The strength of each candidate's application was determined by the following criteria:

- National/International reputation
- Academic rank
- Peer-reviewed publications within the last 5 years
- Ability to write a thesis
- Boards, directorships, and leadership roles
- Specialty(ies) and areas of expertise
- Nomination letters and recommendations

Additional criteria discussed included:

- Grants (funding agencies)
- Teaching responsibilities
- Presentations within 5 years
- Research and scholarship
- Professionalism and ethics
- Demonstration of excellence
- Contribution to diversity, equity, and inclusion (DEI) efforts
- Potential for contributions to AOS

Nominations are accepted year-round, with an annual deadline of April 30. The primary nominator is responsible for collecting and submitting nomination letters through the online form.

If a nominee has not published extensively or lacks significant research experience, additional support should be provided in the nomination letter to outline the candidate's capacity to submit an acceptable thesis. The Council reviews and approves nominations in the spring.

Approved nominees are invited to submit a membership application, which is reviewed by the Committee on Membership. The Council reviews the committee's recommendation and approves applicants in the fall.



Jacque L. Duncan, MD

Approved nominees are invited to write a thesis and are considered AOS candidates. Thesis proposals are submitted for committee approval in February. A confidential report listing candidates is published in the summer, and comments by membership are encouraged. Candidates submit their theses through AJO, which are reviewed and accepted year-round.

The Committee on Theses reviews submissions, and AOS members may be requested to review theses. Candidates are invited as Active Members when their thesis is accepted by the Committee on Theses.

The future of the organization, as well as the AOS's critical leadership role in our profession, is dependent upon the continued growth of the AOS. Members are strongly encouraged to identify and nominate outstanding candidates who will bring diversity, perspective and expertise to the Society and have robust records in education, research, clinical care, advocacy, and service.

REPORT FROM THE ARCHIVIST PHOTOGRAPHER

RALPH C. EAGLE, JR, MD

I took hundreds of digital photographs at the One Hundred Sixty-First Annual Meeting of the American Ophthalmological Society held at the Ritz-Carlton, Naples in Naples, Florida on May 15-17, 2025. The photos were taken with a Nikon Z9 mirrorless digital camera.

I photographed eleven new members signing the AOS membership book. A photo show comprising more than 350 captioned photos in PDF format for the members-only meeting photo section of the AOS website was prepared. The photo show includes photos of the 2025 AOS President **Julia A. Haller, MD**, Executive Vice President **David J. Wilson, MD**, the 2025 AOS Council, 2025, AOS Medal recipient **Carol L. Shields, MD**, as well as photos of selected members and couples. 8 x 10-inch color prints of selected photos were sent to the officers, Council members, new members, and other attendees.

The 2025 photo show has been posted online. The member's-only area of the AOS website now includes 29 downloadable photo shows beginning with the 1996 AOS meeting at the Grove Park Inn in Asheville, North Carolina. The digital archive of the AOS comprises thousands of high-resolution digital photographs and 1,400 digital images prepared from scanned transparencies.



Ralph C. Eagle, Jr, MD



Dr. Eagle presents the Archivist's Report during the Executive Session

REPORT FROM THE COMMITTEE ON EMERITI

THOMAS D. FRANCE, MD

The Annual Emeritus Luncheon during the AOS Annual Meeting was held on Saturday, May 17th from 1:00pm-2:30pm at The Ritz-Carlton, Naples in Naples, Florida. We were happy to welcome a guest speaker to this luncheon, Ms. Elaina Gyure, who is the Curator of Education at the Collier County Museums. A lifelong resident of southwest Florida, Elaina brought a passion for the region's rich history and culture. She gave a talk entitled "Milestones in Collier County History," offering a fascinating glimpse into the local area. Thank you to all who attended.



Leslie France, CO and Thomas D. France, MD

I regret to inform you of the passing of the following AOS members since my last *AOS Transactions* report in 2024:

Delmar R. Caldwell, Sr, MD	New Orleans, LA	Member since 1997
Alexander R. Irvine, MD	San Francisco, CA	Member since 1980
P. Thomas Manchester, MD	Savannah, GA	Member since 1970
Roger F. Meyer, MD	Grosse Pointe, MI	Member since 1986
Jerry A. Shields, MD	Philadelphia, PA	Member since 1981
Daniel M. Taylor, Sr, MD	Kensington, CT	Member since 1972
Mark OM Tso, MD	Baltimore, MD	Member since 1987

REPORT FROM THE COMMITTEE ON NEW MEMBERS

AMANI FAWZI, MD

THE FOLLOWING NEW MEMBERS WERE WELCOMED TO THE AOS THIS YEAR

Hilda Capó, MD

- Bascom Palmer Eye Institute
- **Specialty:** Pediatric Ophthalmology & Strabismus, Neuro-Ophthalmology
- **Thesis:** *Influence of Age and Underlying Etiologies on Outcomes of Strabismus Surgery in the Elderly Population*

Alex Huang, MD, PhD

- Shiley Eye Institute
- **Specialty:** Glaucoma, Cataract/Anterior Segment
- **Thesis:** *Artificial Intelligence Deep Learning Models to Predict Spaceflight Associated Neuro-Ocular Syndrome*

George N. Magrath, MD

- MUSC Health Storm Eye Institute
- **Specialty:** Ocular Oncology, Medical Retina
- **Thesis:** *Use of a Convolutional Neural Network to Predict the Response of Diabetic Macular Edema to Intravitreal Anti-VEGF Treatment: A Pilot Study*

Edoardo A. Midena, MD, PhD

- University of Padova, School of Medicine
- **Specialty:** Retina/Vitreous, Ocular Oncology
- **Thesis:** *Neurofibromatosis Type 1 (NF1)-Related Ocular Signs: New Insights on Their Prevalence, Incidence, and Genotype-Phenotype Correlation in NF1 Children*

Mark E. Pennesi, MD, PhD

- Oregon Health & Science University; The Retina Foundation of the Southwest
- **Specialty:** Ophthalmic Genetics
- **Thesis:** *Development and Validation of a Commercially Available Two Color Dark Adapted Perimetry to Assess Inherited Retinal Degenerations*

J. Bradley B. Randleman, MD

- Cleveland Clinic Cole Eye Institute
- **Specialty:** Refractive Surgery
- **Thesis:** *Three-Dimensional Mechanical Characterization of Normal, Subclinical, and Keratoconic Corneas Using Motion Tracking Brillouin Microscopy*

Matthew P. Simunovic, MB, BChir, PhD, FRANZCO

- Sydney Eye Hospital
- **Specialty:** Retina/Vitreous etina
- **Thesis:** *The 1-Step Versus 2-Step Subretinal Injection Trial (1,2-SIT)—A Randomized Controlled Trial to Compare Drug Reflux Following Subretinal Injection*



New Members from top left: George N. Magrath, MD, MBA, MS, Ronald Mancini, MD, FACS, Rachel W. Kuchtey, MD, PhD, Rafael L. Ufret-Vincenty, MD, and Renato Ambrosio, MD, PhD. From bottom left: Nisha R. Acharya, MD, MS, Fatema F. Ghana, MD, Mildred M.G. Olivier, MD, FACS, Juliana Maria F. Sallum, MD, PhD, and Jacque L. Duncan, MD. Inset photo: Tien Y. Wong, MBBS, PhD

REPORT FROM THE COMMITTEE ON ATHLETICS

WOODFORD S. VAN METER, MD

The 161st meeting of the American Ophthalmological Society was held May 15-17, 2025, on the beach in Southwest Florida at the Ritz-Carlton Hotel in Naples. This year's meeting, however, was somewhat bittersweet because Naples was supposed to host the 157th meeting in 2020 at the Ritz Carlton. That meeting was canceled because of the COVID-19 virus outbreak which had started in March of 2020 and caused the recission of live meetings throughout the country. Large gatherings of people were still discouraged in 2020 and 2021 because of the perceived risk of facilitating the spread of COVID. As a result of COVID, the 2020 meeting was cancelled completely and the 2021 meeting was held virtually. The Chair of the Committee on Programs **Jayne Weiss** had lined up CDC head Anthony Fauci to speak on COVID-19 in 2021. As you recall, the cancelled 2020 meeting venue at Torrey Pines was rescheduled in 2024 and the 2021 venue scheduled in Naples was rescheduled in 2025. So, in Naples we celebrated the end of the COVID -19 effect on the AOS.

The weather at the 2025 meeting was spectacular and may have been the best weather for an AOS meeting in

recent memory. Two major changes in the athletic program struck at the heart of the AOS tradition: 1) tournament stroke play in golf competitions for men and ladies gave way to a scramble format for mixed teams. 2) Because of declining tennis numbers and intensified interest in pickleball, the tennis tournament gave way to a pickleball tournament. Last year's athletics director, before he resigned, was overheard saying that pickleball will replace tennis at the AOS only when it can reliably be determined that hell has frozen over. It must have been pretty cold last May somewhere in southwest Florida because pickleball seems here to stay. So, two organized athletic events were held in Naples; those that opted out of golf and pickleball found time for beach, spa, sightseeing (alligators and everglades), culture (museums and shows) and shopping.

Golf was played on Friday on the Tiburon Golf Club Course, a short drive from the Ritz Carlton where the meeting was held. That distinction is noteworthy because there are two Ritz-Carlton Hotels in Naples about 4 miles apart, one on the beach where the meeting was held and one inland adjacent to the Tiburon Golf Course. The Gold Course at Tiburon, the home of the Annual LPGA tour



2025 AOS Pickleball Tournament

championship, was a spectacular south Florida venue with enough water and trees to make one forget we were in the midst of a large city. This First (ever) AOS Golf Scramble format allowed both men and ladies to play together in a casual and relaxed format with sufficient handicapping to keep the pressure off any participant who felt their golf skills were not worthy of PGA acclaim. In other words, everyone that played had fun. There were water balls, lost balls, lost clubs, lost players, lost carts, rules violations, and rule modifications. Players opined more excuses than a Philadelphia lawyer on court day. But the big winner of the first day was clearly the scramble format!

Pickleball was held on Saturday afternoon at a large public pickleball complex near the Ritz Carlton hotel. People with all different skill sets came out of the woodwork to play pickleball, some with personalized custom-made paddles and others with community racquets held by the wrong end. Enthusiastic participants (of all ages) played men's doubles, ladies doubles, and mixed doubles. And once the tournament was completed, people stayed and played with whoever they could find on the courts until finally time was called for the start of the evening banquet. The big winner of the second day: pickleball!!

GOLF SCRAMBLE:

FIRST PLACE:

Dr. David J. Wilson

Nancy Greene

Dr. Hans E. Grossniklaus

Dr. Woody S. Van Meter

THIRD PLACE:

Dr. Tamara R. Fountain

Dr. Alex V. Levin

Dr. Peter A. Netland

Dr. Larry Tychsen

SECOND PLACE:

Dr. Victor L. Perez

Rohit Muralidhar

Christine Norcross

Dr. Deborah K. Vanderveen

DUBIOUS AWARDS IN GOLF FROM THE ATHLETICS DIRECTOR

LONG DRIVE:

Men – **Dr. Chris T. Leffler**

Men >65 – **Dr. Peter A. Netland**

Ladies – **Dr. Tamara R. Fountain**

Ladies > 65 – Christine Norcross

CLOSEST TO THE PIN:

Men – **Dr. David K. Wallace**

Men > 65 – **Dr. Peter A. Netland**

Ladies – Nancy Greene

Ladies > 65 – Christine Norcross

THE NAME YOUR OWN GOLF COURSE AWARD:

The Tamara Fountain at Tiburon

PICKLEBALL:

MEN'S DOUBLES

Winners:

Dr. John J. Chen

Rohit Muralidhar

Runners Up:

Dr. David Huang

Andrius Jurkunas

LADIES DOUBLES

Winners:

Dr. Jennifer I. Lim

Dr. Valerie L. Biousse

Runners Up:

Dr. Tamara R. Fountain

Dr. Nancy Newman

MIXED DOUBLES

Winners:

Dr. Chris T. Leffler

Chloe Shields

Runners Up:

Dr. Jad F. Assaf

Shreya Bhatt

DUBIOUS AWARDS IN PICKLEBALL FROM THE ATHLETICS DIRECTOR

THE AOS MANAGEMENT AWARD:

Dr. Preston H. Blomquist

Dr. Marilyn B. Mets

Now, bags are packed, clubs are stored and protests have already lodged for the 162nd meeting of the AOS May 21-23, 2026, at the La Fonda on the Plaza Resort in Santa Fe, NM. All AOS members and guests are encouraged to attend to participate in one of the most time-honored traditions of the AOS. And all you past participants are urged to attend in order to defend your erstwhile and somewhat specious glory.

REPORT FROM THE COMMITTEE ON PRIZES

RICHARD L. ABBOTT, MD

The AOS Medal is awarded not more than once a year and not more than once to the same individual. Membership and active participation in the Society are desirable but not absolute requirements. The AOS Medal is awarded to recognize one or more of the following criteria: (a) A discovery or innovation that advances the progress of ophthalmology in all parts of the world; (b) Outstanding original investigations in ophthalmology; (c) Significant contributions as an ophthalmic educator; and (d) Meritorious and remarkable service to ophthalmology.

The Committee on Prizes: The charge to this committee was to select the awardee for the 2025 AOS Medal and present the award at the Annual Meeting banquet in May 2025.

The Committee making that selection was comprised of **Douglas D. Koch, MD**, **Jennifer I. Lim, MD**, and Chair, **Richard L. Abbott, MD**. The chair convened the committee members through email communications for the purpose of selecting the AOS Medal recipient. None of the Members of the Committee on Prizes were candidates for the award. The Committee, with the assistance of Amber Mendez, solicited Medal nominations from the membership at large via several email requests. These requests began on Monday, September 16th, 2024, and concluded on December 1, 2024. A list of 12 nominees with the required supporting materials were received from AOS members and were carefully reviewed and discussed by the committee. One individual received 2 nominations. In addition, committee members considered those individuals previously nominated, as well as outstanding individuals who were not AOS members.

The Committee on Prizes shared multiple email conversations, culminating in a conference call in December 2024. The Committee came to a unanimous decision to select **Carol L. Shields, MD**, as the 2025 American Ophthalmological Society Medalist.

Dr. Carol L. Shields attended the University of Notre Dame for undergraduate pre-medical studies and played 4 years of Varsity basketball on the Women's basketball team, serving as captain for 3 years. She completed her medical school at the University of Pittsburgh and residency in Ophthalmology at Wills Eye Hospital in Philadelphia in 1987. She subsequently completed fellowship training in Ocular Oncology, Oculoplastic Surgery, and Ophthalmic Pathology. **Dr. Shields** is currently the Director of the Oncology Service, Wills Eye Hospital, and Professor of Ophthalmology at Thomas Jefferson University in Philadelphia. **Dr. Shields** has authored or coauthored 12 textbooks, over 2000 articles in major peer-reviewed journals, over 340 textbook chapters, given over 1000 lectureships, and has received numerous prestigious professional awards. She is a member of numerous ocular oncology, pathology, and retina societies and has delivered 74 named lectures in America and abroad. She serves on the editorial board of several journals including *JAMA*, *Ophthalmology*, *Retina*, *Journal of Pediatric Ophthalmology and Strabismus*, *Ophthalmic Plastic and Reconstructive Surgery*, and *International Journal of Clinical Oncology*.

The American Ophthalmological Society Medal was awarded to **Dr. Carol L. Shields** at the conclusion of the banquet at the Annual Meeting of the AOS in May 2025, by **Richard L. Abbott, MD**. In addition to the AOS membership and guests attending the banquet, arrangements had been made, without the knowledge of the Medal recipient, to have her family present during the presentation of the AOS medal ceremony. **Dr. Shields** was especially surprised and grateful to have her family in attendance. Finally, I am most appreciative of Carol's daughter, Dr. Nellie Shields and Ms. Sandra Dailey, Carole's long-time practice assistant, who were invaluable in secretly gathering information and photos for my Medal presentation to Carol.



Carol L. Shields, MD, 2025 AOS Medal Recipient

REPORT FROM THE COMMITTEE ON AUDITS

WILLIAM F. MIELER, MD

MINUTES

I. WELCOME AND CALL TO ORDER

Dr. William F. Mieler, Chair of the AOS Committee on Audits, called the meeting to order at 2:30 p.m. PDT on Wednesday, July 30, 2025. The following Committee members, staff and guests were present:

Committee

William F. Mieler, MD – Audit Committee Chair
Preston H. Blomquist, MD – Audit Committee Member
David J. Wilson, MD – Executive Vice President

Staff

Amber Mendez – AOS, Manager / Associate Director, SF AMS
Alice Paw – Accounting Manager, American Academy of Ophthalmology

Audit Partners

Rianne Suico – Partner, Moss Adams
Gordon Lam – Senior Manager, Moss Adams

II. REVIEW OF FISCAL YEAR 2024 AUDITED FINANCIAL STATEMENTS

Ms. Alice Paw presented the audited consolidated financial statements for the year ended December 31, 2024, prepared by Baker Tilly. She highlighted year-to-year variances and summarized major financial changes:

Item	2023	2024
Change in net assets from operations	(\$509,440)	(\$571,213)
Net investment income	\$242,976	\$258,698
Net gain on investments	\$1,142,950	\$726,229
Change in net assets	\$876,486	\$413,714
Net assets beginning of year	\$9,252,198	\$10,128,684
Net assets end of year	\$10,128,684	\$10,542,398

Ms. Paw noted:

- Cash increased \$128K, reflecting transfers from investments (\$550K) and treasury bond maturities (\$111K), offset by net cash used in operations (\$571K).
- Prepaids decreased \$36K, primarily from expensing the 2024 Annual Meeting deposit, offset by the deposit for the 2027 meeting.

- Investments increased \$323K, driven by \$985K in investment income and market gains, offset by transfers and bond maturities.
- Accounts payable rose \$46K due to timing of invoices received after year-end.
- Total net assets increased \$414K as a result of positive investment performance.
- Registration fees rose \$22K, due to increased registration rate and higher attendance at the 2024 Annual Meeting in La Jolla.
- Annual meeting expenses rose \$42K, reflecting a higher-cost venue.
- Administrative/general expenses increased \$37K due to higher AMS management and audit fees.

ACTION: The Committee accepted Ms. Paw's report as presented.

III. AUDIT PRESENTATION

Ms. Rianne Suico and Mr. Gordon Lam of Moss Adams presented the Report of Independent Auditors, which covered internal procedures, controls, accounts payable processes, and recognition of revenue. She reported that the consolidated financial statements were fairly presented in accordance with generally accepted accounting principles. She shared that no issues were discussed prior to their retention as auditors for the AOS, and that they had no disagreements with AOS management during the process.

ACTION: The Committee accepted the auditor's report as presented.

IV. EXECUTIVE SESSION

Dr. Mieler excused SF AMS and AAO staff. The Committee met in executive session with Ms. Suico and Mr. Lam of Baker Tilly. The Committee did not identify any irregularities or items warranting further investigation. **Dr. Mieler** confirmed that a separate audit of internal controls was not deemed necessary at this time.

V. ADJOURNMENT

Dr. Mieler adjourned the meeting of the Audit Committee at 3:05 p.m. PDT on Wednesday, July 30, 2025.

AOS COUNCIL APPOINTMENTS

2025-2026

AOS Council – **Timothy Stout**

AOS President – **William F. Mieler**

Executive Vice President – **David J. Wilson** to cont.

Editor – **David J. Wilson** to cont.

Member, Committee on Theses –

Tatyana Milman and

Deborah K. VanderVeen to join

David Huang, Chair

David Sarraf

Member, Committee on Programs –

Joel S. Schuman to join

M. Roy Wilson, Chair

Peter S. Hersh

Anne M. Hanneken

Member, Committee on Membership –

John J. Chen to join

Michele C. Lim, Chair

Tamara R. Fountain

Russell N. Van Gelder

Members, Committee on Communications

Bennie H. Jeng, Chair to cont.

H. Nida Sen

Ron A. Adelman

Anat Galor

Nicholas J. Volpe

Chair, Committee on New Members –

Johanna M. Seddon to join

Suzanne K. Freitag, Chair

Steven J. Gedde

Member, Committee on Prizes –

Anne L. Coleman to join

Douglas D. Koch, Chair

Jennifer I. Lim

Chair, Committee on Emeriti –

Thomas D. France to cont.

Committee on Athletics –

Woodford S. Van Meter and

Frederick W. Fraunfelder to cont.

Chair, Audit Committee –

Emily Y. Chew to join

Preston H. Blomquist, Chair

David J. Wilson

Investment Committee –

William F. Mieler and **David K. Wallace** to join

David J. Wilson

Archivist/Photographer – **Ralph C. Eagle, Jr.** to cont.

Representative to AAO Council –

Esen K. Akpek and alt. **Peter A. Netland** to cont.

Representative to the American College of Surgeons –

Bita Esmaeli to cont.

Representative to the Pan American Association of Ophthalmology –

Eduardo C. Alfonso to cont.

Representatives to the American Orthoptic Council –

Natalie C. Kerr to join **Steven M. Archer** and

Kanwal Nischal

Representative to the Heed Ophthalmic Foundation –

David J. Wilson and **Julia A. Haller** to cont.

Representative to JCAHPO –

Teresa C. Chen to cont.

Parliamentarian –

Peter A. Netland to cont.

REPORT FROM THE REPRESENTATIVE TO THE COUNCIL OF THE AMERICAN ACADEMY OF OPHTHALMOLOGY

ESEN K. AKPEK, MD

OVERVIEW

The Council of the American Academy of Ophthalmology (AAO) serves as an advisory body to the AAO Board of Trustees, providing insight, feedback, and recommendations from across the ophthalmic community. The Council is composed of representatives from all 50 states (through state ophthalmological societies) as well as 16 recognized subspecialty and specialized-interest societies.

The Council meets twice annually — once in the spring in Washington, D.C. as part of the *AAO Mid-Year Forum*, and again in the fall during the *AAO Annual Meeting*. These gatherings provide critical opportunities to discuss national advocacy priorities, policy challenges, and issues affecting the practice of ophthalmology.

AAO MID-YEAR FORUM 2025

The 2025 Mid-Year Forum was held April 2–5, 2025, at the Westin Hotel in Washington, D.C. The Forum opened with Advocacy Day on Capitol Hill, where ophthalmologists met with members of Congress and key legislative staff to emphasize ophthalmology's top legislative and regulatory priorities.

MAJOR ADVOCACY ISSUES DISCUSSED:

- Medicare Physician Payment Stability & Fairness: Addressing the ongoing erosion of physician reimbursement, which has failed to keep pace with inflation and the rising costs of practice operations.
- Quality Eye Care for Veterans: Ensuring access to high-quality ophthalmic services for U.S. veterans through VA partnerships and federal support.
- Federal Funding for Vision Research: Advocating for sustained and expanded support of the National Eye Institute (NEI) and related research initiatives.
- Reform of Prior Authorization Requirements: Reducing administrative burdens and improving timely access to care for patients.
- Access to Pediatric Eye Care: Highlighting the need for comprehensive pediatric vision services nationwide.

ADVOCACY AMBASSADOR & LEADERSHIP DEVELOPMENT

The Forum featured a robust Advocacy Ambassador Program, offering residents, fellows, and early-career ophthalmologists structured opportunities to engage in advocacy training and mentorship. Participants met with Capitol Hill staff and Academy leadership, gaining first-hand exposure to the policy-making process.

The “LEAP Forward” session (Leadership, Engagement, Advocacy, and Practice-Management) provided a dynamic platform for young ophthalmologists to develop leadership and advocacy skills vital to their future roles in organized medicine.

COUNCIL ADVISORY RECOMMENDATIONS (CARs)

A central function of the Council is to generate Council Advisory Recommendations (CARs) — proposals submitted by state and subspecialty societies to address key policy, practice-management, or advocacy concerns. CARs are deliberated during the Council sessions and prioritized for action or referral to the AAO Board of Trustees.

This year, the American Ophthalmological Society (AOS) did not sponsor any CARs. The Council reviewed the progress of previously submitted CARs, tracking their impact on ongoing advocacy and policy initiatives. This iterative process ensures accountability and responsiveness to member concerns.

AAO ANNUAL MEETING 2025

The AAO Annual Meeting 2025 will be held October 17–20, 2025, at the Orange County Convention Center in Orlando, Florida.

The Annual Meeting serves as ophthalmology's premier global gathering, offering a comprehensive program encompassing clinical innovation, surgical advancements, diagnostic technology, and practice-management education. In addition to the extensive scientific sessions, the fall Council meeting provided an opportunity to review progress on policy initiatives, discuss emerging advocacy issues, and align strategies for the coming year.

LOOKING AHEAD AND MEMBER ENGAGEMENT

As the AOS representative to the AAO Council, I encourage all members to remain actively engaged in the Council process. The Council represents a vital conduit for communicating member concerns to the national level, particularly regarding:

- Reimbursement policies and payment reform
- Regulatory and compliance changes
- Workforce and scope-of-practice challenges
- Federal and state legislative issues

Your insights and input help shape the Academy's advocacy priorities and policy agenda. By staying informed about Council discussions and outcomes, practices can better anticipate changes — whether in policy, regulation, or reimbursement — and strategically adapt their operations, staffing, and compliance strategies.

REPORT FROM THE REPRESENTATIVE TO THE AMERICAN COLLEGE OF SURGEONS

BITA ESMAELI, MD, FACS

I have enjoyed serving as an AOS representative on the Board of Governors of the American College of Surgeons. Our priorities are advocacy and promotion of educational experiences that highlight the missions of ACS and its member groups including AOS. We have been busy with the ACS sponsored AJCC committee revising four of our ocular cancer disease sites for the 9th edition of AJCC to be published in 2026. I serve as the co-chair of the

Ophthalmic Oncology Task Force of the American Joint Committee on Cancer (AJCC) 9th edition working group and the lead expert panel chair for conjunctival melanoma and conjunctival carcinoma protocols which will undergo major changes for the 9th edition. Look forward to learning from AOS leadership if there are specific areas that impact our membership and require advocacy from ACS.

REPORT FROM THE REPRESENTATIVE TO THE AMERICAN ORTHOPTIC COUNCIL

STEVEN M. ARCHER, MD

I. AOS REPRESENTATION ON THE AOC

The American Orthoptic Council is an organization supported by 8 entities:

- American Association for Pediatric Ophthalmology and Strabismus (AAPOS)
- American Ophthalmological Society (AOS)
- American Academy of Ophthalmology (AAO)
- American Academy of Pediatrics Section of Ophthalmology (AAP)
- American Association of Certified Orthoptists (AACO)
- Canadian Orthoptic Council (COC)
- The Canadian Orthoptic Society (TCOS)
- North American Neuro-ophthalmology Society (NANOS) – newly added

Current AOS representatives to the AOC include:

- **Natalie Kerr, MD** who replaces James Reynolds this year
- **Steve Archer, MD**
- **Kanwal 'Ken' Nischal, MD**

The input of these members is greatly appreciated as they have provided valuable input and leadership to the organization. We continue to value the AOS as a sponsoring organization.

Natalie Kerr, MD, Ken Nischal, MD and **Steve Archer, MD** are each actively involved in multiple AOC committees and serve as examiners for the oral certifying exams.

Steve Archer, MD is heavily involved in the Orthoptic Fellowship Program at his institution and chairs the Ethics committee.

Ken Nischal, MD sits on the Editorial Board of the Journal of Binocular Vision and Ocular Motility; the journal which is now published online by Taylor and Francis and replaced the American Orthoptic Journal. **Steve Archer** serves as a reviewer.

Natalie Kerr, MD is heavily involved in the Orthoptic Fellowship Program at her institution.

II. 2025 NEWLY CERTIFIED ORTHOPTISTS

In September, the AOC oral practical exams to certify orthoptists was again carried out virtually via zoom format. Fourteen candidates passed, achieving certification.

III. ORTHOPTIC FELLOWSHIP PROGRAMS

There are currently 18 AOC accredited orthoptic fellowship programs in the U.S., the newest being a program at Duke which was accredited this year and already has students in the program.

IV. JOURNAL OF BINOCULAR VISION AND OCULAR MOTILITY (BVOM)

AOJ, Inc, has successfully transitioned to the new publisher, Taylor & Francis. All members of AOC sit on the board which governs the publication together with the publisher. The BVOM is being published online 4 times a year with one yearly print version encompassing all 4 online publications. The journal was successful in maintaining the Medline status obtained by the AOJ and subscribers have access to all AOJ back-issues. The founding co-editors guiding this publication are Kyle Arnoldi, CO, and Burt Kushner, MD.

V. 2025 AAPOS WORKSHOP, FRIDAY MARCH 7, 2025

The AOC/AAPOS joint workshop took place in Salt Lake City for the AAPOS Annual Meeting this past March. "Acquired Esotropia: Converging Causes and Diverging Treatments" presented by orthoptists and pediatric ophthalmologists including two new AOC members representing AAO [Nancy Benegas] and NANOS, [Gena Heiday].

VI. 2025 AAO/AOC/AACO SUNDAY SYMPOSIUM, SUNDAY, OCTOBER 19, 2025

"It's All in Your Head Position: Anomalous Head Postures—Examination, Causes and Treatment" Co-Chaired by Rachael Jenkins and Douglas Frederick.

VII. ACCREDITATION

After last year's decision not to pursue accreditation with the Commission on Accreditation of Allied Health Education Programs (CAAHEP), the Accreditation Committee continues to reaccredit Orthoptic Fellowship Programs by July of each year. The Council continues to be in charge of certifying exams, certification and re-certification of certified orthoptists.

VIII. CORE COMPETENCY DOCUMENT AND SYLLABUS OF ORTHOPTIC INSTRUCTION

The AOC core competency document and Syllabus of Orthoptic Instruction are both available, outlining the clinical skill expectations and core topics of study for orthoptists. This will be used for training programs to

better guide and set standards for the education of their students. This will also be available for international applicants requesting certification by the AOC®. The Syllabus is newly revised, and the Core Competency documents are both available for a nominal fee from the home office. There has been a decision to augment the Core Competency document, and a working group is being organized to execute this.

IX. ANNUAL BUSINESS MEETING

While usually scheduled during the AAO annual meeting, this year's annual business meeting is scheduled to occur virtually via Zoom on 11/19/25. Information from this meeting is therefore unavailable at the time of this report and will be included in next year's report.

REPORT FROM THE REPRESENTATIVE TO THE HEED OPHTHALMIC FOUNDATION

DAVID J. WILSON, MD

The Heed Ophthalmic Foundation Board of Directors consists of five members, and a minimum of two of those members are drawn from the AOS membership. The AOS is one of three sponsors of the annual Heed Resident Retreat. The 2025 Heed Resident Retreat was held in Salt Lake City, Utah, immediately following the annual ARVO meeting. This year 11 of the 28 faculty members were AOS members. The retreat is structured to encourage promising

residents to enter a career in Academic Ophthalmology. For logistical reasons, future Heed Resident Retreats are going to be held as a stand-alone meeting in Chicago. This returns the retreat to an earlier format. Attempts to pair the retreat with the AOS meeting or with ARVO have been logically challenging for both residents and the Heed Retreat Faculty.

REPORT FROM THE REPRESENTATIVE TO THE INTERNATIONAL JOINT COMMISSION ON ALLIED HEALTH PERSONNEL IN OPHTHALMOLOGY

TERESA C. CHEN, MD

1. GOVERNMENTAL ACTIVITIES

- Expanded the Veterans Affairs TECS program to train and certify ophthalmic assistants and technicians.
- Supported 3 CARs at the 2025 AAO Mid-Year Forum.
- Supported the International Council of Accreditation in its work to advance the development and accreditation of AOP training programs in the U.S. and Canada.

2. SOCIOECONOMIC ACTIVITIES

AOP Career Advancement Initiatives

- Awarded 13 Ophthalmic Assistants with Apprenticeship Recognition and IJCAHPO COA certification in the programs by the US Department of Labor Apprenticeship and the Minnesota State Department of Labor Apprenticeship.
- Presented for the 8th year at HOSA International Leadership Conference (Health Occupations Students of America) with over 10,000 students attending
- Published survey report on *IJCAHPO Salary and Benefits Survey Report 2024*.

3. PUBLIC SERVICE ACTIVITIES AND EYECARE AMERICA ACTIVITIES

- Awarded 80 Training Program Scholarships of nearly \$20,200 to ophthalmic technicians' academic education, continuing education and certification.
- Promoted Eyecare America Activities and NEI monthly Eye Care recognition programs

4. MEMBERSHIP ACTIVITIES

- Elected new Board of Directors: At-Large Directors.
- Total number of certificants – over 34,055 worldwide.

5. ANNUAL MEETING AND EDUCATIONAL ACTIVITIES

- IJCAHPO hosted its fifth annual hybrid program, a Virtual On-Demand and On-Site 52nd Annual *Continuing Education Program* with Capstone Lecture Series by leading ophthalmologists.
- Published new Refinements monographs for technician CE.
- Provided 6 complimentary/free CE Credits to certificants.
- Developed a New Hire Training Track for new front desk employees and ophthalmic assistants.

6. INTERNATIONAL ACTIVITIES

- Presented AOP career at PAAO Congress in Bogota, Columbia, and OSWI Jamaica.
- Worked with Ghana, Uruguay, Pakistan, and Fiji on initiatives for AOP academic training programs.

7. MAJOR INITIATIVES FOR THE YEAR

- Published new certification examinations for COA, COT, and COMT.
- Joined the WHO and serving as technical advisor and developer of the Competency Refractive Error Team (CRET) and pilot cases.

September 2025

ACKNOWLEDGEMENT:

Special thanks to Lynn D. Anderson, PhD, Chief Executive Officer of IJCAHPO, for her help in preparing this report.

REPORT FROM THE REPRESENTATIVE TO THE PAN-AMERICAN ASSOCIATION OF OPHTHALMOLOGY

EDUARDO C. ALFONSO, MD

1. PAN-AMERICAN COUNCIL OF UNIVERSITY PROFESSORS (PACUPO)

Jorge E. Valdez, MD (Mexico) chairs PACUPO. The purpose of this program is to unite and standardize university training programs throughout Latin America through exchange programs and other means. Towards this end, Dr. Valdez has been working with Eduardo Viteri MD (Ecuador), as Chair of the PAAO eLearning Committee. Eduardo Mayorga MD (Argentina) created “Campus PAAO” to offer PAAO webinars and over the years many PACUPO members have given more than 150 educational courses free of charge. Dr. Mayorga has created asynchronous courses for students. The complete list of archived webinars and the schedule of upcoming webinars and asynchronous courses are available on the PAAO’s website www.paaao.org.

2. FELLOWSHIPS COMMITTEE

Paulo E.C. Dantas MD (Brazil) chairs the **Fellowships Committee**. Scholarships are funded primarily by the Pan-American Foundation. All the training programs are fully functioning again.

3. VISITING PROFESSORS COMMITTEE

José Antonio Roca MD (Peru) chairs the **Visiting Professors Committee**. The Visiting Professors Program sends Visiting Professors to present the “Pan-American Lecture” at national ophthalmological meetings in the Americas. All the national societies have resumed presential meetings.

4. PAAO-YO ACTIVITIES

Victor Villegas, MD (Puerto Rico) chairs the PAAO-YO program. The purpose of this program is to offer education and networking opportunities to young ophthalmologists around the world. The PAAO-YO organize webinars and are collaborating with the YO’s of the American Academy of Ophthalmology. For more information, please see <https://paaoyo.paaao.org/>.

5. 2025 MEETINGS & EDUCATIONAL ACTIVITIES

Continuing education and prevention of blindness programs are the primary mission for the PAAO.

20th Curso de Liderazgo (2022-2024): This class graduated on May 28, 2025, in Bogotá, Colombia. This two-year training course collaborates with the American Academy of Ophthalmology and shared a joint training session on January 11-14, 2024, in San Francisco.

21st Curso de Liderazgo (2025-2027): This class was launched on May 28, 2025, in Bogotá, Colombia. There will be a live training course in collaboration with the American Academy of Ophthalmology on January 15-18, 2026, in San Francisco.

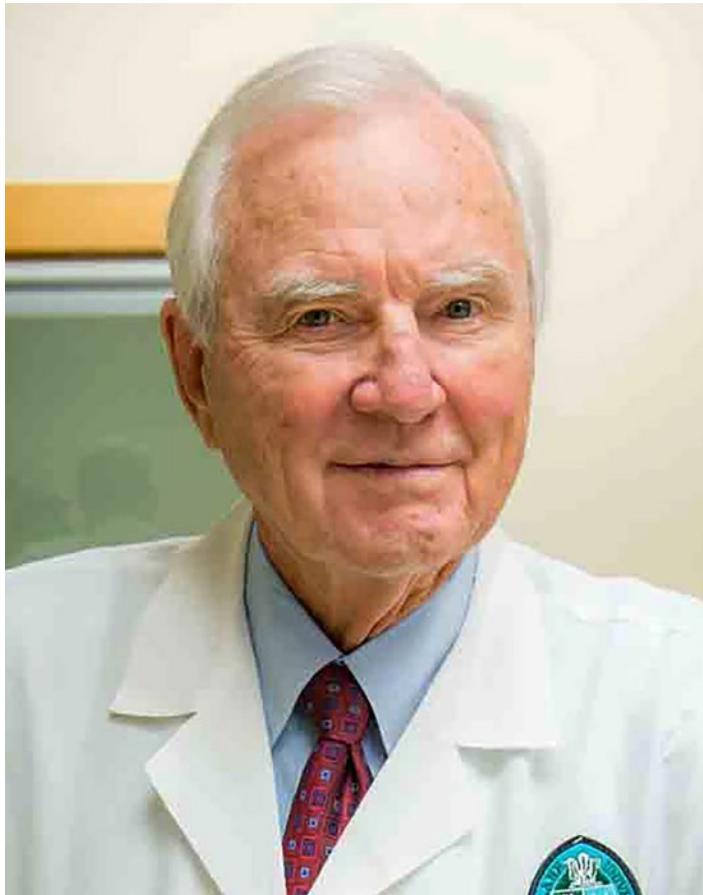
36th Pan-American Congress of Ophthalmology: An international congress was co-hosted by the Colombian Society of Ophthalmology in Bogotá, Colombia, May 28 – June 2, 2025. More than 4,200 ophthalmologists from around the world came together and shared scientific knowledge and the latest research advances.

22nd Pan-American Research Day: Took place on Saturday, May 30, 2025, as a live meeting in conjunction with the 36th Pan-American Congress in Bogotá, Colombia. Ten young researchers from around the world were featured.

39th Lo Mejor de la AAO en Español: Virtual meeting will take place on Saturday, November 1, 2025, which summarizes select topics that were presented during the Annual Meeting of the American Academy of Ophthalmology.

NECROLOGY IN MEMORIUM

DELMAR R. CALDWELL, SR, MD



Delmar Ray Caldwell, Sr, MD died on March 18, 2024, at the age of 88. Dr. Caldwell was born in Thomas, Oklahoma, to the late John William Caldwell and Ada Gertrude Deikman Caldwell. He is survived by his partner JoAnn Thompson, two sons, Delmar Ray Caldwell Jr. and William Mark Caldwell, daughter, Samantha McShane, five grandchildren, and three great-grandchildren. Dr. Caldwell's life embodied the American dream. The youngest of six boys, Del was raised in a four-room cabin on a dirt farm in Western Oklahoma without electricity, running water, or reliable food. Orphaned by the age of nine, he lived with various relatives and foster families before becoming fully independent at thirteen. His early life

was defined by hardship, but also by perseverance, intellect, and resilience. To fund his education, he raised hogs, hauled wheat from Nebraska to Canada, and played minor league baseball for the Washington Senators. He attended the University of Oklahoma on a football scholarship, completed medical school at the University of Oklahoma, and was a surgical intern at the University of Texas, Galveston. He received many awards and honors (Outstanding Senior Student of Surgery and The Mosby Book Award) and gave his first presentation as a third-year student at the American College of Surgeons. He entered general practice at Polly Ryon Hospital in Richmond, Texas from 1962-1969, serving as Chief of Staff in 1967. Then he completed ophthalmology residency and a cornea fellowship at Baylor University in Houston under the mentorship of David Payton, Louis Girard, and Dan Jones.

Dr. Caldwell was Associate professor and director of the cornea service at the University of Mississippi in Jackson from 1973-1978. He was Professor and Chair of the Department of Ophthalmology at Tulane University in New Orleans from 1978-2021 and held the Louisiana Board of Regents Olga Oliver Dabzies Professorship from 2001-2024. Dr. Caldwell invigorated a department with vacant residency slots, a shortage of full-time faculty, and financial problems, hiring a full complement of prestigious faculty and outstanding staff, making Ophthalmology the most productive department at Tulane. More than 100 fellows and 300 residents completed their training during his tenure at Tulane. He was a gifted and prolific cataract, glaucoma, and corneal surgeon who performed more than forty thousand cataract and over fifteen thousand corneal transplant surgeries. He made numerous trips to Central and South America to teach and cared for patients in underserved communities in Mexico and the Dominican Republic.

Dr. Caldwell was a licensed pilot and successful businessman. He owned a steel mill which supplied the Alaska oil pipeline. He bred and raced thoroughbred horses on his farm in Folsom, Louisiana for more than forty years. **Dr. Caldwell** was a Fellow of the American College of Surgeons and Charter Member of the Eye Bank Association of America. He served on the International Advisory Board of Orbis and was a surgeon on the first Orbis flight. **Dr. Caldwell** authored more than 50 peer-reviewed publications and served as the Chairman of the Transactions Committee for the New Orleans Academy of Ophthalmology and edited seven *Transactions* publications during his tenure. He also served as a consultant to the Editorial Board of

the *Journal of the Louisiana State Medical Society* and as editor of *Mediguide to Ophthalmology*. He was cited by NASA for creative development in their patent, *Three Dimensional Optic Tissue Culture and Process*. Recently he investigated the use of special proprietary gas to treat microbial keratitis. His 1997 AOS thesis described the soft keratoprosthesis which he continued to refine up until the time of his passing. He will be greatly missed by his friends, family, patients, trainees, and colleagues.

Written By,

JAYNE S. WEISS, MD
NEW ORLEANS, LA

ALEXANDER R. IRVINE, MD



Dr. Alexander (Alex) R. Irvine, MD was born on July 15, 1938, in Los Angeles into a very distinguished family of Southern California ophthalmologists. So far, there have been four Irvines in AOS. His father, S. Rodman Irvine, MD described what came to be known as Irvine-Gass Syndrome. While Alex was destined to become an ophthalmologist, the line from his youthful desires hardly led to his chosen profession. Indeed, during high school, Alex followed his passion of working with horses and developed other plans for his career. He got a job working on a ranch in Arizona where he loved the camaraderie of his fellow cowboys as well as their rugged lifestyle. Choosing to remain working on the ranch, Alex really had no intention of going to college. His parents, Rodman and Mary, had other ideas. After a series of communications, some by letter and some otherwise, Alex enrolled at Princeton.

Alex couldn't resist his genetic calling to medicine. He attended and graduated Harvard medical school in 1964 where the highlight was meeting and then marrying his fellow classmate, Chauncy. After medical school, he completed his Ophthalmology residency at UCSF in 1968. Then, Alex took two of the premier fellowships in the US: the first from Dr. Herbert Kauffman in Cornea

in Gainesville and a second with Drs. Edward Norton and Robert Machemer at Bascom Palmer. Following completion of his training in 1970, he joined the US Army working at Letterman Hospital in San Francisco. After 2 years, Alex completed his military service and was recruited as a full-time member of the Retina Service at UCSF in 1972. Most of the UCSF faculty at that time were volunteer.

Alex enjoyed a remarkable career at UCSF. Given his broad interest in the entire field of ophthalmology, his research crossed sub-specialty boundaries. Just his AOS contributions alone spanned papers on a long-term non-human primate model of radiation retinopathy, a rabbit model of herpes simplex keratitis, and evaluation of the clinical and histopathologic features of Choyce, Binkhorst, and Shearing IOLs. Alex was the first to recognize that the operating microscope could produce a photic maculopathy in patients undergoing extracapsular cataract extraction. He and Rich McDonald, a UCSF resident, wrote the seminal paper describing the clinical and fluorescein angiographic findings of this unrecognized complication. Because San Francisco was hard hit with the HIV epidemic, Alex managed and published on ocular complications of HIV and surgical treatment of retinal detachment from CMV retinitis.

While Alex made numerous contributions to the literature, at UCSF he was most beloved by the residents for his teaching. In clinic, he had small wooden windows installed between examination rooms so he could beckon the resident into his room to see an interesting case. When the resident would join him to examine the patient, he/she would be introduced to the patient as someone whom Alex would like to "consult" on the case. During surgery, he was generous beyond comparison in handing cases over to each resident. His lectures and fluorescein conferences were all gems, both challenging and engrossing. At faculty meetings, it was always Alex who was the greatest advocate for the residents. In essence, he, along with Dr. Steven Kramer, created the wonderful residency experience that endures at UCSF. As an individual, there was no one more modest than Alex. He never wanted to take the credit for a tough diagnosis or a creative idea; instead, he insisted it belonged to others. It wasn't surprising that when Alex retired from UCSF in

2006, that the annual Resident's Day was named in his honor.

Upon retiring, **Alex** literally rode off into the sunset. He bought a land in a remote part of Lake County, CA and returned to his childhood passion of raising and riding horses. He was so expert that neighboring ranchers would bring their horses for **Alex** to train. **Alex** loved ranch life, fixing breaks in the fence, tending the animals, and installing basic plumbing and electricity for his trailer home. Chauncy, was still practicing psychiatry in San Francisco, but she would join him on weekends until finally moving up to Lake County full-time. When they

weren't riding horses, they would tour California together on their Harley Davidson motorcycles. Whether on horses or motorcycles, the Irvines loved sharing the outdoor life and its unexpected adventures, all the while enjoying the natural beauty of Northern California.

Alex passed on September 14, 2024, at the age of 86. He is survived by his two children, Matthew and Mary, and grand-children, Alexandra and Ianeta.

Written By,

DANIEL M. SCHWARTZ, MD
SAN FRANCISCO, CA

ROGER F. MEYER, MD



Roger Frederick Meyer, MD was born in 1939 in Ohio, where he was raised on a rural farm. After an accident requiring several hospitalizations, he dreamed of becoming a doctor. He excelled in high school and was an undergraduate student at the University of Michigan, where he became a lifelong Wolverine fan. After attending medical school at The Ohio State University he served as an Air Force flight surgeon, ranking as Captain. He started an orthopedic surgery residency but was intrigued by the burgeoning clinical interest in transplantation and moved to a residency at the University of Michigan (UM) Department of Ophthalmology and Visual Sciences (now the W. K. Kellogg Eye Center) in 1968 with the goal of becoming a corneal transplant surgeon. He completed an Ocular Microbiology and Immunology Heed Fellowship at the Proctor Foundation of the University of California at San Francisco in 1974 and a Corneal fellowship at the University of Florida in 1975. He then returned to UM to establish the Cornea Service. His main interest was in corneal transplantation, contributing to many clinical trials and laboratory studies. He received over 40

research grants and published over 100 journal articles. He served as Medical Director of the Michigan Eye Bank (now Eversight) throughout his career. He became a full professor in 1983. He also served on many committees and boards and was elected to the American Ophthalmological Society in 1986. Roger established the cornea fellowship at the University of Michigan in 1980, which has since been continuously filled and has trained more than 70 fellows. He was an outstanding role model for residents and fellows and remained a consulting resource for them long after their training. He recruited new faculty to the Kellogg Cornea Service, acting as their mentor and promoting their careers.

Dr. Meyer was intensely committed to providing high quality care to his patients and they were committed to him. Besides his knowledge and skill as an astute clinician and surgeon, he had a gift of calm warmth that made patients comfortable and loyal to him. He performed more than 4,000 corneal transplants on these grateful patients.

Roger raised two daughters, for many years as a model single father, and was devoted to his five grandchildren. He taught his grandchildren to play poker and to ski, skills they perfected annually in Aspen, Colorado. He was a founding member of a Kellogg/Cornea poker game which began in about 1970 and continues still. Even after retiring he returned from California to Ann Arbor monthly to join the game as well as to attend UM football games.

While conducting a clinical trial in the late 1990s, **Roger** met Judy Gordon DVM, who led a company consulting on clinical trial design, regulatory affairs and FDA applications and presentations, primarily for ophthalmic devices. When they married in 2001, **Roger** retired from clinical practice and moved to Laguna Beach, California to be near Judy's family. He continued to work as an advisor to Judy's company and to several ophthalmic device start-up firms. Judy generously endowed the Kellogg Eye Center's annual Roger F. Meyer MD Lectureship in Cornea beginning in 2011. After his wife's untimely death, **Roger** returned to Michigan to be near his daughters, Lauren and Jennifer, and his grandchildren. He passed away at the age of 85 in November 2024.

Written By,

ALAN SUGAR, MD, MS
ANN ARBOR, MI

IVAN ROY SCHWAB, MD



1948 – 2025

On December 13, 2025, our colleague and friend, Ivan R. Schwab, passed away after a lengthy illness. Ivan bade farewell surrounded by his family at his home in Fair Oaks, CA.

Born and raised in West Virginia, the son of a pharmacist, **Ivan** developed an early interest in medicine as well as a keen interest in animals and the natural world around him. After graduation from high school, he attended West Virginia University, where he received both B.A. and M.D. degrees. Upon completion of his residency in ophthalmology at Pacific Medical Center in San Francisco, he went on to complete a fellowship in Corneal and Reconstructive Surgery at Pacific Medical Center, followed by a fellowship in Cornea, External Disease, and Uveitis at the UCSF Proctor Foundation. He then joined the Department of Ophthalmology at West Virginia University

as Director of the Cornea Service. In 1990, **Ivan** migrated to Fair Oaks, CA, where he joined the Department of Ophthalmology & Vision Science at the University of California, Davis in Sacramento. He collaborated in the establishment of a fellowship in Cornea and External Disease that grew into one of the finest cornea fellowships in the country.

Ivan was a superb clinician and surgeon and complemented these skills with a unique ability to teach fellows, residents, and medical students. He garnered multiple teaching awards over his 35-year tenure at UC Davis and was the national recipient of the 2019 Claes Dohlman Award from the Cornea Society for excellence in teaching. He was a devoted member of the American Ophthalmological Society, served as a director of the American Board of Ophthalmology, and became a leader in the Cogan Ophthalmic History Society.

Ivan was well known internationally for his expertise in comparative ophthalmology and completed his magnum opus, *Evolution's Witness: How Eyes Evolved*, published in 2012. He was, perhaps, the world's most knowledgeable authority in comparative ophthalmology, recognized by both human ophthalmology and veterinary ophthalmology for his expertise.

And aside from his many academic accomplishments, **Ivan** will long be remembered for his personal grace, wry sense of humor, kindness, loyalty, and interest in everything and everyone around him. He was a devoted husband, father, and grandfather. He was a gifted speaker and raconteur. He had an astounding knowledge of all living creatures. He was a man of uncompromising principle.

Those of us who crossed paths with this remarkable man are the better for it.

Requiescat in Pacem.

Written By,

**MARK J. MANNIS, MD, FACS
Sacramento, CA**

JERRY A. SHIELDS, MD



Jerry Allen Shields, MD, one of the most influential figures in modern ophthalmology and a pioneer in ocular oncology, passed away peacefully at his home in Bryn Mawr, Pennsylvania, on June 22, 2025. He was 88 years old. At his side, as throughout his life and career, was his beloved wife and collaborator, Dr. Carol Lally Shields, and their family.

Dr. Shields was born June 9, 1937, in Pride Station, Union County, Kentucky, the youngest of eight children in a rural coal-mining family. His boyhood fascination with butterflies, which led him to amass one of the largest private collections in the United States at the time, foreshadowed the scientific rigor and meticulous classification that would later define his medical career.

He graduated from Murray State University in 1960, excelling academically and athletically, before earning his medical degree at the University of Michigan in 1964. His path briefly led through psychiatry before he found his true calling in ophthalmology.

Dr. Shields served as a Marine battalion surgeon in Vietnam, where he provided front-line medical care, and later in the U.S. Navy in Europe. Returning to the United States, he entered residency at Wills Eye Hospital in Philadelphia, completing it in 1970. He pursued fellowships in ophthalmic pathology at the Armed Forces Institute of Pathology in Washington, D.C., under Dr. Lorenz Zimmerman, and in vitreoretinal surgery at Wills Eye Hospital.

In 1974, **Dr. Shields** founded the Ocular Oncology Service at Wills Eye Hospital, one of the first dedicated eye cancer centers in the world. Through tireless dedication, he transformed a nascent program into the world's largest referral center for ocular tumors. He pioneered techniques that fundamentally changed the field, including the use of ultrasonography, fluorescein angiography, and radioactive P-32 uptake for tumor detection, as well as the development and refinement of plaque radiotherapy for intraocular melanoma.

For more than four decades, he and **Dr. Carol Shields** built the service into a global hub of excellence, training nearly 300 fellows from around the world, many of whom assumed leadership positions in ocular oncology.

Dr. Shields authored over 2,000 peer-reviewed articles, 700 textbook chapters, and 13 textbooks, including seminal atlases that have become foundational references in ocular oncology. His writings standardized tumor classification and treatment protocols, shaping how ophthalmologists worldwide diagnose and manage ocular cancers.

He served as the founding president of the International Society of Ocular Oncology and sat on the editorial boards of numerous journals. Among many honors, he received the Laureate Award of the American Academy of Ophthalmology (2014) and the National Physician of the Year Award for Clinical Excellence (2013). The Asia Pacific Society of Ophthalmology established the Jerry Shields Lecture in 2012 in recognition of his global impact.

Dr. Shields met **Dr. Carol Lally** at WillsEye Hospital and they married in 1985, forming what colleagues affectionately called the “power couple of ophthalmology.” Together they raised seven children, balancing an extraordinary professional partnership with a warm and joyful family life. He was a devoted husband and father, known for his humor, athleticism, and love of tennis, basketball, and skiing.

Despite his renown, **Dr. Shields** remained approachable and compassionate, always willing to take a colleague’s call or offer guidance. Patients and trainees alike remember him as charismatic, demanding of excellence, and unfailingly generous with his time and knowledge.

Dr. Jerry A. Shields was more than a physician—he was a mentor to generations, and a healer whose influence reached far beyond Philadelphia to every corner of the

globe. His legacy lives on in the countless patients whose sight and lives he saved, in the fellows he trained, and in the enduring partnership with **Dr. Carol Shields** that redefined ocular oncology for the modern era.

He is survived by his wife, **Carol**, their seven children, three grandchildren, and extended family. Contributions in his memory may be made to the Jerry A. Shields MD Eye Cancer Fund (jerryashields.com or jaseyecancerfund.com) to support future research in ocular oncology.

The American Ophthalmological Society mourns the passing of one of its giants and celebrates the remarkable life and legacy of **Jerry A. Shields, MD**.

Written By,

JULIA A. HALLER, MD
PHILADELPHIA, PA

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MARK O.M. TSO, M.D., D.Sc.



Personal Thoughts on the Death of Professor Mark O.M. Tso, M.D., D.Sc. (1936-2025)

I write as a close friend, great admirer, and longstanding colleague of Professor Mark Tso. Mark and I worked happily together for half a century, first at the University of Illinois Department of Ophthalmology in Chicago, and later at the Wilmer Eye Institute at The Johns Hopkins University. At both institutions, Mark was the director of eye pathology, utilizing the sciences of both experimental eye pathology and clinical-pathologic correlation. In my opinion, he was the very best in the world in these sophisticated, important disciplines.

Mark received over 60 major honorary awards and medals in the U.S. and elsewhere. He served on 11 editorial boards and 15 scientific or medical advisory boards, and he delivered over 45 special lectureships and visiting professorships throughout the world.

Mark was not only my trusted advisor and scientific colleague, he was my dear friend. I feel a tremendous loss, and I grieve deeply with the passing of this great person.

Mark completed his internship and ophthalmic residency at Boston University, followed by nine years of brilliant research in experimental eye pathology at the Armed Forces Institute of Pathology in Washington, D.C. I was first exposed to **Mark's** eloquent and pioneering lectures in 1970, when I attended the presentation of his original research on several topics, including cancer of the retina, at the AFIP. I resolved then that I wanted him to join my new department at the University of Illinois. With the support of his wise wife, Petrina, he did so.

Mark's personal research produced seminal publications on the following diseases: retinoblastoma, papilledema, photic injury to the macula, degeneration of the retinal rods and cones, systemic hypertension, diabetic retinopathy, macular degeneration, and others. For these and many other notable contributions, **Mark** received the prestigious Friedenwald Award from the Association of Vision and Ophthalmology and the Professor Gottfried Naumann, MD Award from the International Council of Ophthalmology (ICO).

At both the University of Illinois and The Johns Hopkins University, **Mark** taught hundreds of American resident ophthalmologists the intricacies of common and rare eye diseases. He also taught hundreds of international research fellows how to make accurate diagnoses and how to teach about the related illnesses. The research fellows were then able to return to their native lands, qualified to successfully assume the responsibilities of department chairmanships.

On several occasions, I observed **Mark** teaching six or more research fellows simultaneously, using prismatic beam splitters at each of the interconnected binocular microscopes. None of these brilliant scholars could speak or understand the primary language of any of the others — but it didn't matter, because of **Mark's** enthusiastic and compelling communication and educational skills. **Mark's** influence, therefore, became worldwide, and he was honored whenever he travelled to deliver invited honorary lectures, each one with his famous gusto and intellectual brilliance.

He was the founder and first director of two important academic departments of ophthalmology in Asia, first at the Chinese University in Hong Kong in 1994 for five years. Following that, he became president of the Hong Kong College of Ophthalmology. Later in 2001, he became the founder and first director of the new 10-story Peking University Eye Center. **Mark** had raised funds overseas for the new center, where he worked for 10 years. He was also committed to travelling to innumerable poor, rural villages throughout China to improve local eye care.

Mark also wrote an entirely new curriculum for teaching ophthalmology worldwide, under the auspices of the International Council of Ophthalmology. For many years, he was also director of education and vice president of the ICO, which then created, in his honor, the ICO-Mark Tso Golden Apple Award, to be conferred upon that one person annually who has had outstanding success in worldwide ophthalmic education. In addition, at the University of Illinois, the annual Mark Tso, MD Research Award for Outstanding Research was established in 2024. **Mark** also arranged for the publication throughout Asia of the Chinese Language Edition of the influential monthly periodical, the *Archives of Ophthalmology*.

For his extraordinary successes in China, **Mark** was honored in 2009 by the Chinese national government, including the State Council of China, at a ceremony held in the People's Great Hall in Beijing, with the former

premier of China, Mr. Wen Jiabao, in attendance. **Mark** was presented with the highest honor conferred upon a few foreign specialists for their invaluable contributions to China. Known as the Friendship Award, it is commemorated with a gold medal.

Mark worked for much of the last portion of his life at the Wilmer Eye Institute, achieving the title of Emeritus Professor of Ophthalmology and of Pathology at Johns Hopkins. His scientific publications exceeded 300 and were cited in the scientific literature over 14,000 times.

As important as were all of these extraordinary accomplishments, there has been nothing more important to **Mark**, as he described to me on numerous occasions, than his love and feelings of responsibility for his wife, Petrina, and for his devoted children, Michael and Veleda, as well as for his wonderful, large, extended Tso family. As for his professional responsibilities, **Mark** was always the quintessential team player, performing in a completely selfless and humble way, never attempting to feather his own nest. He discharged his many important duties with distinction, dignity, fairness, and honesty. **Professor Mark Tso's** prodigious personal and professional legacies will undoubtedly persist indefinitely throughout the world.

Written By,

MORTON F. GOLDBERG, MD
BALTIMORE, MD