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VIRTUAL MEETING 2021

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May 21-23, 2021

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Grand, M. Gilbert (2003)
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Harbour, James (2019)
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Horton, Jonathan (1997)
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Krueger, Ronald (2012)
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Lueder, Gregg (2012)
Macsai, Marion (2008)
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Mannis, Mark (2000)
Mansberger, Steven (2013)
McCannel, Colin (2017)
McCulley, James (1990)
McCulley, Timothy J. (2013)
McDonald, Marguerite (2005)
McLeod, Stephen (2006)
Merriam, John (1996)
Mian, Shazhad (2015)
Mieler, William (1997)
Miller, Joan (2008)
Miller, Joseph (2010)
Milman, Tatyana (2019)
Mindel, Joel (1986)
Morrison, John (2006)
Netland, Peter (2009)
Newman, Steven (2007)
Nguyen, Quan (2016)
Nischal, Kanwal (2016)
Nork, T. Michael (2000)
Nouri-Mahdavi, Kouros (2019)
O'Brien, Joan (2018)
Olsen, Timothy (2008)
Parke II, David (2007)
Parrish II, Richard (1996)
Parsa, Cameron (2013)
Parver, Leonard (2000)
Pasquale, Louis (2013)
Paysse, Evelyn (2004)
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Pulido, Jose (1996)
Puro, Donald (2002)
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Reynolds, James (2007)
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Sadun, Alfredo (1998)
Sahel, José-Alain (2021)
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Schanzlin, David (1999)
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Schuman, Joel (2008)
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Silkiss, Rona (2016)
Simon, John (2007)
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Small, Kent (1998)
Smith, Justine (2018)
Sobrin, Lucia (2021)
Souied, Eric (2020)
Spaide, Richard (2019)
Spencer, Rand (2006)
Stager Jr., David (2013)
Stamper, Robert (1984)
Stein, Joshua (2013)
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Stone, Edwin (2003)
Stout, Timothy (2006)
Suh, Donny (2021)
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Thompson, John (2003)
Topouzis, Fotis (2019)
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Tsang, Stephen (2014)
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Waring, IV, George (2021)
Weakley Jr., David (1999)
Weinreb, Robert (2001)
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Wiggs, Janey (2014)
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Wilson, Steven (2002)
Wilson Jr., M. Edward (2004)
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Yannuzzi, Lawrence (1986)
Young, Terri (2004)
Zacks, David (2009)
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Albert, Daniel (1979)
Anderson, Douglas (1981)
Anderson Jr., W. Banks (1968)
Asbury, Taylor (1966)
Augsburger, James (1988)
Baum, Jules (1982)
Berler, David (1989)
Biglan, Albert (1990)
Blair, Norman (2000)
Bourne, William (1983)
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Bullock, John (1983)
Burton, Thomas (1982)
Carr, Ronald (1974)
Caldwell, Delmar (1997)
Clarkson, John (1992)
Coleman, D. Jackson (1986)
Cooper, William (1985)
Crawford, J. Brooks (1980)
Darrell, Richard (1981)
Dayton, Glenn (1977)
Donshik, Peter (1994)
Ellis, Phillip (1971)
Erie, Jay (2003)
Farris, R. Linsy (1985)
Federman, Jay (1982)
Feldon, Steven (2004)
Feman, Stephen (1994)
Flach, Allan (1998)
Flanagan, Joseph (1980)
Forbes, Max (1974)
Forster, Richard (1992)
Foster, C. Stephen (1986)
France, Thomas (1984)
Frank, Robert (1998)
Fraunfelder, Frederick (1976)
Gaasterland, Douglas (1986)
Glew, William (1979)
Godfrey, William (1987)
Goldberg, Morton (1978)
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Guyton, David (1986)
Hagler, William (1980)
Harris, Gerald (1993)
Heckenlively, John (1987)
Helveston, Eugene (1980)
Holland, Edward (1996)
Hull, David (1990)
Hyndiuk, Robert (1981)
Iliff, W. Jackson (1985)
Ing, Malcolm (1981)
Irvine, Alexander (1980)
Jampol, Lee (1987)
Jarrett, William (1981)
Jones, Dan (1980)
Kass, Michael (1989)
Kaufman, Paul (1990)
Kelley, James (1983)
Kenyon, Kenneth (1985)
Klein, Barbara (1993)
Knox, David (1973)
Kreiger, Allan (1991)
Laibson, Peter (1976)
Lakhanpal, Vinod (1993)
Landers III, Maurice (1978)
Laties, Alan (1974)
Lawwill, Theodore (1982)
Lemp, Michael (1989)
L'Esperance Jr., Francis (1968)
Lewis, Richard Alan (1989)
Lichter, Paul (1976)
Liesegang, Thomas (1988)
Lindstrom, Richard (1990)
Little, Hunter (1976)
Liu, Donald (2005)
Manchester, Jr., P. Thomas (1970)
Maumenee, Irene (1981)
Mazow, Malcolm (1987)
McMeel, J. Wallace (1971)
Meredith, Travis (1993)
Mets, Marilyn (1999)
Metz, Henry (1983)
Meyer, Roger (1986)
Meyers, Sanford (1994)
Miller, Marilyn (1991)
Minckler, Donald (1986)
Miranda, Manuel (1979)
Mitchell, Paul (1998)
Nelson, J. Daniel (1995)
Nirankari, Verinder (1992)
O'Neill, John (1998)
Payne, John (1980)
Pollard, Zane (1997)
Raab, Edward (1982)
Rao, Narsing (1990)
Ravin, James (2008)
Rich, Larry (1999)
Richards, Richard (1966)
Ritch, Robert (1994)
Robb, Richard (1974)
Robertson, Dennis (1978)
Robin, Alan (1989)
Rogers, Gary (2003)
Runge, Paul (2000)
Schaefer, Daniel (2007)
Schocket, Stanley (1986)
Schultz, Richard (1971)
Scott, Alan (1981)
Sears, Marvin (1973)
Sergott, Robert (1991)
Shields, Jerry (1981)
Shields, M. Bruce (1983)
Sieving, Paul (1993)
Sommer, Alfred (1983)
Spaeth, George (1975)
Spivey, Bruce (1976)
Srinivasan, B. Dobli (1982)
Stager Sr., David (1996)
Stark, Walter (1980)
Straatsma, Bradley (1968)
Sugar, Alan (1989)
Summers, C. Gail (1996)
Taylor, Daniel (1972)
Taylor, Hugh (1989)
Thompson, H. Stanley (1977)
Townsend, William (1991)
Truhlsen, Stanley (1965)
Tso, Mark (1987)
Van Buskirk, E. Michael (1988)
Van Newkirk, Mylan (1997)
Veronneau-Troutman, Suzanne (1978)
Vine, Andrew (2000)
Waller, Robert (1982)
Waltman, Stephen (1984)
Watzke, Robert (1968)
Wilensky, Jacob (1991)
Wilhelmus, Kirk (2000)
Wilkinson, Charles (1981)
Wilson, R. Sloan (1983)
Wong, Vernon (1972)
Wood, Thomas (1984)
Woog, John (2007)
Yanoff, Myron (1975)
Yeatts, R. Patrick (2005)
Younge, Brian (1984)

MINUTES OF THE PROCEEDINGS

ONE HUNDRED AND FIFTY-SEVENTH ANNUAL MEETING
MAY 21-23, 2021

THE ONE HUNDRED AND FIFTY-SEVENTH ANNUAL MEETING OF THE AMERICAN OPHTHALMOLOGICAL SOCIETY (AOS) WAS HELD VIRTUALLY.

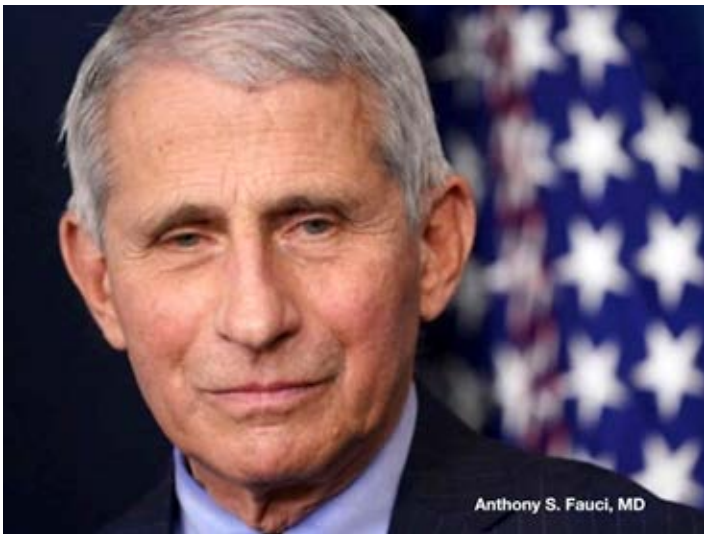
On May 21, 2021, Friday, President **Woodford S. Van Meter, MD** called the opening session to order. The program began with the following Friday sessions.

MARILYN T. MILLER LECTURE:

COVID-19 in 2021: Lessons Learned and Remaining Challenges
Anthony Fauci, MD

KNAPP SYMPOSIUM: COVID-19: WHAT WE THOUGHT WE KNEW, WHAT WE LEARNED, AND FUTURE STRATEGIES

1. Introduction – ***Jayne S. Weiss, MD***
2. Global Clinical Ophthalmology and COVID-19 – What We Can Learn from Australia and New Zealand – ***Hugh R. Taylor, AC, MD, FRAC***
3. Managing an Ophthalmology Department/Ophthalmology Practice During a Pandemic – ***Stephen D. McLeod, MD***
4. The Post COVID Virtual World – Telemedicine, CME, and Certification – ***Michael F. Chiang, MD***
5. Eye Findings in COVID-19 – ***Anat Galor, MD, MSPH***



Inaugural Marilyn T. Miller Lecturer, Dr. Anthony S. Fauci

SCIENTIFIC PAPER SESSION I: FRIDAY, MAY 21, 2021

1. Likelihood of Germline Mutation with Solitary Unilateral Retinoblastoma Based on Patient Age at Presentation
   Carol Shields**, Philip Dockery, Megan Ruben, Antonio Yaghy, **Jerry Shields
2. Evaluation and Application of a Deep Learning-Based Quantitative Severity Scale for Retinopathy of Prematurity
   ***Michael Chiang**, Jayashree Kalpathy-Cramer, Sang Jin Kim, Stanford Taylor, Kishnan Gupta, **R.V. Paul Chan**, J. Peter Campbell*
3. Retinal Hemorrhage Patterns: A New Paradigm
   ***Alex Levin**, Gil Binenbaum, Brian Forbes*
4. In Vitro Antibiotic Resistance Among Bacterial Isolates Collected from the Aqueous and Vitreous Humor in the ARMOR Study
   ***Penny A. Asbell**, Christine M. Sanfilippo, Heleen H. DeCory*

SCIENTIFIC PAPER SESSION II: FRIDAY, MAY 21, 2021

1. Role of Topical 5-Fluorouracil in Demodex-Associated Blepharitis
   *Joanne Ho, Despoina Theotoka, Sarah Wall, **Anat Galor**, Anny Cheng, **Carol Karp***
2. Validation of the Newly Proposed WHO Classification System for Conjunctival Melanocytic Intraepithelial Lesions: A Comparison with the 'C-Min' and 'PAM' Classification Schemes
   Tatyana Milman**, Maya Eiger-Moscovich, Roger Henry, Robert Folberg, Sarah Coupland, **Hans Grossniklaus**, Hardeep Mudhar, Charles Eberhart, Steffen Heegaard, Claudia Aud-Hädrich, **Carol Shields**, **Ralph Eagle
3. Classifying Corneal Epithelial Irregularities as Primary Deformation Versus Secondary Modulation on OCT Maps
   ***David Huang**, Elias Pavlatos, Yan Li*
4. *Revisited Corneal Anatomy: Stromal Peeling of Penetrating Keratoplasty Grafts through a Newly Identified Natural Surgical Plane of Separation*
   *Angeli Christy Yu, **Massimo Busin***
5. *Age Matters! Comparing Clinical Trial Outcomes of Cataract Surgery at Surgery Ages 1-7 Months (IATS & TAPS), to Outcomes at 7-24 Months (TAPS) and 2-7 Years (STORM Database)*
   ***M. Edward Wilson**, Rupal Trivedi, Carolina Adams, Anastasia Alex*

Drs. Bartley, Buckley, and Stewart

Dr. Bradley Black on Guitar - Artistic Soiree

EXECUTIVE SESSION: SATURDAY, MAY 22, 2021

SATURDAY SYMPOSIUM: I WISH I HADN'T DONE THAT, I WISH I HADN'T THOUGHT THAT, OR I WISH I HAD THOUGHT THAT!

1. Introduction – ***Edward G. Buckley, MD***
2. NEURO – ***Steven Newman, MD***
3. RETINA – ***William F. Mieler, MD***
4. GLAUCOMA – ***Peter A. Netland, MD, PhD***
5. PEDIATRICS – ***Sean P. Donahue, MD, PhD***
6. CORNEA – ***Douglas Koch, MD***
7. PLASTICS – ***George B. Bartley, MD***

SCIENTIFIC PAPER SESSION III: SATURDAY, MAY 22, 2021

1. Relationship of Hydroxychloroquine Retinopathy Progression to Stage at Cessation of Therapy
   David Browning*, Rhett Koonce*
2. Pentosan Polysulfate Maculopathy: Prevalence, Spectrum of Disease, and Choroidal Imaging Analysis Based on Prospective Screening
   David Sarraf
3. Rare and Common Genetic Variants and Behavioral Modifiable Factors are Associated with Earlier Age of Progression to Advanced Stages of AMD in a Prospective Analysis
   Johanna Seddon
4. Mechanism of Fibrosis in Experimental Model of Age-Related Macular Degeneration
   M. Elizabeth Hartnett*, Haibo Wong, Aniket Ramshekar, Eric Kunz*
5. Automated Cell Density Mapping of Macular Surface Macrophages in Retinal Vasculopathies Using Clinical OCT
   Richard B. Rosen*, Oscar Otero, Maria V. Castanos Toral, Davis Zhou, Rishard Weitz, Justin Migacz, Toco Chui*

SEVENTH ANNUAL ARTISTIC SOIREE, MAY 22, 2021

AOS MEDAL PRESENTATION, MAY 22, 2021

SCIENTIFIC PAPER SESSION IV: SUNDAY, MAY 23, 2021

1. Bilirubin-Induced Visuocortical Damage: Evidence of a Spectrum of Corticovisual Impairment
   William Good*, Chuan Hou, Anthony Norcia, Vinnod Bhutani, Cynthia Montiel, Ronald Wong, Terri Slagel*
2. Earlier Detection of Glaucoma Progression Using Optic Nerve Volume Scans with Three-Dimensional Spectral-Domain Optical Coherence Tomography
   Kitiya Ratanawongphaibul, Edem Tsikata, Michele Zemplenyi, Hang Lee, Milica Margeta, Courtney Ondeck, Janice Kim, Billy Pan, Paul Petrakos, ***Anne Coleman****, Fei Yu, Johannes DeBoer,* ***Teresa Chen***
3. Determining the Tractional Forces on Vitreoretinal Interference in Abusive Head Trauma Using Computer Simulation and Animal Models
   Donny Suh
4. Results of an Experimental Model of Traumatic Optic Neuropathy
   Timothy McCulley*, Eric Singman*
5. Reoperations for Complications within 90 Days after Gel Stent Implantation or Trabeculectomy
   Carlo A. Cutolo, Carlo Catti, Michele Lester, Chiara Bonzano, Chiara Pizzorno, ***Carlo Traverso***
6. Visual Fields II: Pericentral Defects are Not Disease Specific
   Steven Newman

PAPER AND POSTER ABSTRACTS

PAPER ABSTRACTS

LIKELIHOOD OF GERMLINE MUTATION WITH SOLITARY UNILATERAL RETINOBLASTOMA BASED ON PATIENT AGE AT PRESENTATION

Carol Shields, Philip Dockery, Megan Ruben, Antonio Yaghy, **Jerry Shields**

EVALUATION AND APPLICATION OF A DEEP LEARNING-BASED QUANTITATIVE SEVERITY SCALE FOR RETINOPATHY OF PREMATURITY

Michael Chiang, Jayashree Kalpathy-Cramer, Sang Jin Kim, Stanford Taylor, Kishnan Gupta, **R.V. Paul Chan**, J. Peter Campbell

RETINAL HEMORRHAGE PATTERNS: A NEW PARADIGM

Alex Levin, Gil Binenbaum, Brian Forbes

IN VITRO ANTIBIOTIC RESISTANCE AMONG BACTERIAL ISOLATES COLLECTED FROM THE AQUEOUS AND VITREOUS HUMOR IN THE ARMOR STUDY

Penny A. Asbell, Christine M. Sanfilippo, Heleen H. DeCory

ROLE OF TOPICAL 5-FLUOROURACIL IN DEMODEX-ASSOCIATED BLEPHARITIS

Joanne Ho, Despoina Theotoka, Sarah Wall, **Anat Galor**, Anny Cheng, **Carol Karp**

VALIDATION OF THE NEWLY PROPOSED WHO CLASSIFICATION SYSTEM FOR CONJUNCTIVAL MELANOCYTIC INTRAEPITHELIAL LESIONS: A COMPARISON WITH THE 'C-MIN' AND 'PAM' CLASSIFICATION SCHEMES

Tatyana Milman, Maya Eiger-Moscovich, Roger Henry, Robert Folberg, Sarah Coupland, **Hans Grossniklaus**, Hardeep Mudhar, Charles Eberhart, Steffen Heegaard, Claudia Aud-Hädrich, **Carol Shields**, **Ralph Eagle**

CLASSIFYING CORNEAL EPITHELIAL IRREGULARITIES AS PRIMARY DEFORMATION VERSUS SECONDARY MODULATION ON OCT MAPS

David Huang, Elias Pavlatos, Yan Li

REVISITED CORNEAL ANATOMY: STROMAL PEELING OF PENETRATING KERATOPLASTY GRAFTS THROUGH A NEWLY IDENTIFIED NATURAL SURGICAL PLANE OF SEPARATION

Angeli Christy Yu, **Massimo Busin**

AGE MATTERS! COMPARING CLINICAL TRIAL OUTCOMES OF CATARACT SURGERY AT SURGERY AGES 1-7 MONTHS (IATS & TAPS), TO OUTCOMES AT 7-24 MONTHS (TAPS) AND 2-7 YEARS (STORM DATABASE)

M. Edward Wilson, Rupal Trivedi, Carolina Adams, Anastasia Alex

RELATIONSHIP OF HYDROXYCHLOROQUINE RETINOPATHY PROGRESSION TO STAGE AT CESSATION OF THERAPY

David Browning, Rhett Koonce

PENTOSAN POLYSULFATE MACULOPATHY: PREVALENCE, SPECTRUM OF DISEASE, AND CHOROIDAL IMAGING ANALYSIS BASED ON PROSPECTIVE SCREENING

David Sarraf

RARE AND COMMON GENETIC VARIANTS AND BEHAVIORAL MODIFIABLE FACTORS ARE ASSOCIATED WITH EARLIER AGE OF PROGRESSION TO ADVANCED STAGES OF AMD IN A PROSPECTIVE ANALYSIS

Johanna Seddon

MECHANISM OF FIBROSIS IN EXPERIMENTAL MODEL OF AGE-RELATED MACULAR DEGENERATION

M. Elizabeth Hartnett, Haibo Wang, Aniket Ramshekar, Eric Kunz

AUTOMATED CELL DENSITY MAPPING OF MACULAR SURFACE MACROPHAGES IN RETINAL VASCULOPATHIES USING CLINICAL OCT

Richard B. Rosen, Oscar Otero, Maria V. Castanos Toral, Davis Zhou, Rishard Weitz, Justin Migacz, Toco Cui

BILIRUBIN-INDUCED VISUOCORTICAL DAMAGE: EVIDENCE OF A SPECTRUM OF CORTICOVISUAL IMPAIRMENT

William Good, Chuan Hou, Anthony Norcia, Vinnod Bhutani, Cynthia Montiel, Ronald Wong, Terri Slagel

EARLIER DETECTION OF GLAUCOMA PROGRESSION USING OPTIC NERVE VOLUME SCANS WITH THREE-DIMENSIONAL SPECTRAL-DOMAIN OPTICAL COHERENCE TOMOGRAPHY

Kitiya Ratanawongphaibul, Edem Tsikata, Michele Zemplenyi, Hang Lee, Milica Margeta, Courtney Ondeck, Janice Kim, Billy Pan, Paul Petrakos, **Anne Coleman**, Fei Yu, Johannes DeBoer, **Theresa Chen**

DETERMINING THE TRACTIONAL FORCES ON VITREORETINAL INTERFACE IN ABUSIVE HEAD TRAUMA USING COMPUTER SIMULATION AND ANIMAL MODELS

Donny Suh

RESULTS OF AN EXPERIMENTAL MODEL OF TRAUMATIC OPTIC NEUROPATHY

Timothy McCulley, Eric Singman

REOPERATIONS FOR COMPLICATIONS WITHIN 90 DAYS AFTER GEL STENT IMPLANTATION OR TRABECULECTOMY

Carlo A. Cutolo, Carlo Catti, Michele Lester, Chiara Bonzano, Chiara Pizzorno, **Carlo Traverso**

VISUAL FIELDS II: PERICENTRAL DEFECTS ARE NOT DISEASE SPECIFIC

Steven Newman

POSTER ABSTRACTS

OPHTHALMIC MANIFESTATIONS OF COVID-19

Ron Adelman

HISTOLOGIC PHENOTYPE ALTERATIONS IN RECURRENT ORBITOFACIAL NEUROFIBROMAS: A CLINICO-PATHOLOGIC STUDY

Mohammad Alabduljabbar, Diego Strianese, Osama Al-Sheikh, Hind Alkatan, Hailah Al-Hussain, Azza Maktabi, Rajiv Khandekar, Malak Abedalthagafi, **Deepak Edward**

CORNEAL MECHANICAL SENSITIVITY IN INDIVIDUALS WITH CHRONIC PAIN USING A MODIFIED BELMONTE AESTHESIOMETER

Brandon Baksh, Caroline Lieux, **Anat Galor**

QUANTITATIVE CONFLICT OF INTEREST IN THE CHOICE OF ANTI-VEGF AGENTS

David Browning, Paul Greenberg

VITRECTOMY FOR SEVERE DIABETIC COMPLICATIONS: A POOLED ANALYSIS OF RANDOMIZED CONTROLLED TRIALS UTILIZING MODERN TECHNIQUES AND EQUIPMENT

David Browning, Ryan Rush

DR. DAVID W. SIME: THE WORLD'S FASTEST HUMAN

John D. Bullock

EPIPREMNUM AUREUM KERATOPATHY: CASE REPORT AND REVIEW OF THE LITERATURE

Adam Cohen, Despoina Theotoka, **Anat Galor**

A PHASE I, DOUBLE-MASKED, VEHICLE-CONTROLLED STUDY TO ASSESS SAFETY, TOLERABILITY, AND PHARMACOKINETICS OF ASCENDING DOSES OF PALOVAROTENE OPHTHALMIC SOLUTION IN HEALTHY ADULTS

William J. Foster, Andrew L. Strahs, **Kent W. Small**, James M. Roach

LONGITUDINAL FUNDUS CHANGES IN MYOPIA: THE BEIJING EYE STUDY 2001/2011

Jost B. Jonas, Qi Zhang, Yan Ni Yan, YaXing Wang, Rahul A. Jonas

THE COVID-19 PANDEMIC, TELEMEDICINE, AND ACADEMIC OPHTHALMOLOGY

Benjamin Lee, **Jayne S. Weiss**, Maria Reinoso, Zhide Fang

BACK TO FUTURE: IDEAS THAT FORESHADOWED MODERN SLIT LAMP EQUIPMENT WITH REGARD TO CORNEAL DIAGNOSIS AND DOCUMENTATION

Walter Lisch, **Jayne S. Weiss**

LAMELLAR NON-ATTACHMENTS OF THE MEDIAL RECTUS: A NEW APPROACH

Irene Ludwig, Christiaan Heersink

GEOSPATIAL ANALYTICS AND EYE CARE PROVIDER AVAILABILITY CAN PREDICT BLINDNESS WITHIN RURAL AND URBAN COUNTIES

Steven Mansberger, Facundo Sanchez, Stuart Gardiner, Jack Rees

LONG-TERM TRIGEMINAL NERVE STIMULATION AS A TREATMENT FOR OCULAR PAIN

Divy Mehra, Simran Mangwani, Kelly Acuña, Jodi Hwang, Elizabeth Felix, **Anat Galor**

PEDIATRIC OPTIC DISC DRUSEN: A RETROSPECTIVE STUDY OF 63 CHILDREN

Barrett Thompson, G. Conner Nix, Lauren Ditta, Mary Ellen Hoehn, **Natalie Kerr**

AAV GENE THERAPY RESCUES CELL DEATH IN A PATIENT-DERIVED RPE MODEL OF BIETTI CRYSTALLINE DYSTROPHY

Yao Li, Chun-Wei Hsu, Yang Kong, Josephy Ryu, Sarah R. Levi, Zhechao Ruan, Yong-Shi Li, Janet R. Sparrow, Richard R. Yang, **Stephen H. Tsang**

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NAMED LECTURES

FREDERICK H. VERHOEFF LECTURERS

1961 DR. ARTHUR J. BEDELL (Inaugural)

1964 SIR STEWART DUKE-EDLER

1969 DR. DAVID G. COGAN

1971 DR. LORENZ E. ZIMMERMAN

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
How Many Photoreceptors Do We Need for Vision?

2003 DR. THADDEUS P. DRYJA
How Molecular Genetics is Lifting the Fog: The Etiology of Retinitis Pigmentosa

2010 DR. ADRIAN GLASSER
Physiology of Accommodation and Pathogenesis of Presbyopia

2013 DR. ALFRED SOMMER
Preventing Blindness & Child Mortality with Vitamin A: An AOS Odyssey

2014 DR. TIMOTHY STOUT
The Rocky Road to Successful Human Gene Therapy

2019 DR. MICHAEL TRESE
A New Approach to VEGF Driven Retinal Vascular Leakage in Inherited and Acquired Retinal Vascular Disease

FREDRICK C. BLODI LECTURERS

2015 DR. TIMOTHY W. OLSEN (Inaugural)
The Age-related Macular Degeneration Complex: Linking Epidemiology and Histopathology Using the Minnesota Grading System

2016 DR. ELIAS I. TRABOULSI
Zonules and Molecules: The Underlying Pathophysiology of Ectopia Lentis

2017 DR. JOSEPH CAPRIOLI
Retinal Ganglion Cell Rescue in Glaucoma

MARILYN T. MILLER LECTURERS

2021 DR. ANTHONY FAUCI (Inaugural)
COVID-19 in 2021: Lessons Learned and Remaining Challenges

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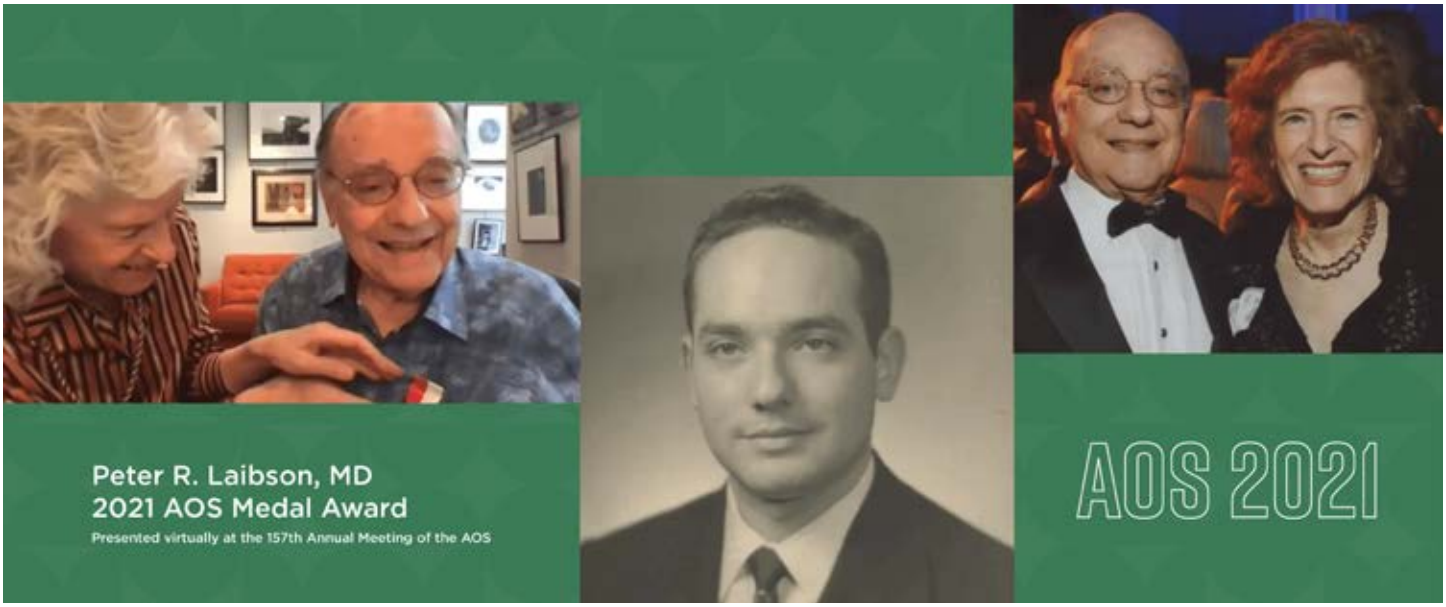
1924 ..... DR ERNEST FUCHS, Vienna, Austria
1925 ..... NO AWARD
1926 ..... DR. EDWARD JACKSON, Denver, CO
1927 ..... MR. PRIESTLY SMITH, Birmingham, England
1928 ..... NO AWARD
1929 ..... DR. THEODOR AXENFELD, Freiburg, Germany
1930 ..... NO AWARD
1931 ..... NO AWARD
1932 ..... DR. F. H. VERHOEFF, Boston,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



2020-2021 THESES PUBLISHED IN THE AJO

Audina M. Berrocal, MD
RETINOPATHY OF PREMATURITY: ADVANCES IN THE SCREENING AND TREATMENT OF RETINOPATHY OF PREMATURITY USING A SINGLE CENTER APPROACH

Steven J. Gedde, MD
FACTORS INFLUENCING CAREER DECISIONS AND SATISFACTION AMONG NEWLY PRACTICING OPHTHALMOLOGISTS

John H. Kempen, MD, MPH, MHS, PhD
REMISSION OF NON-INFECTIOUS ANTERIOR SCLERITIS: INCIDENCE AND PREDICTIVE FACTORS

Christopher T. Leffler, MD
THE FIRST CATARACT SURGEONS IN THE BRITISH ISLES

Pradeep Y. Ramulu, MD, MHS, PhD
ENVIRONMENTAL FEATURES CONTRIBUTING TO FALLS IN PERSONS WITH VISION IMPAIRMENT: THE ROLE OF HOME LIGHTING AND HOME HAZARDS

José-Alain Sahel, MD
ASSESSING PHOTORECEPTOR STATUS IN RETINAL DYSTROPHIES: FROM HIGH-RESOLUTION IMAGING TO FUNCTIONAL VISION

Lucia Sobrin, MD, MPH
GENE SET ENRICHMENT ANALYSES IDENTIFY PATHWAYS INVOLVED IN GENETIC RISK FOR DIABETIC RETINOPATHY

Jeremiah P. Tao, MD
A DIGITAL MICROSCREEN FOR THE ENHANCED APPEARANCE OF OCULAR PROSTHETIC MOTILITY (AN AMERICAN OPHTHALMOLOGICAL SOCIETY THESIS)

Russell N. Van Gelder, MD
MOLECULAR AND CLINICAL CHARACTERIZATION OF HUMAN ADENOVIRUS E4-ASSOCIATED CONJUNCTIVITIS

George O. Waring, IV, MD
CORRELATION OF INTRAOPERATIVE OPTICAL COHERENCE TOMOGRAPHY OF CRYSTALLINE LENS DIAMETER, THICKNESS, AND VOLUME WITH BIOMETRY AND AGE

Robert W. Weisenthal, MD
LONG-TERM OUTCOMES IN FELLOW EYES COMPARING DSAEK AND DMEK FOR TREATMENT OF FUCHS CORNEAL DYSTROPHY

REPORTS

REPORT FROM THE EXECUTIVE VICE PRESIDENT & EDITOR

HANS E. GROSSNIKLAUS, MD

As of July 31st, our total liabilities and fund balance was $11,869,600. Our investments have done well, and we've had some decreased expenses over the past 2 years. Our Annual Meeting this year, which was entirely virtual, went very well. Our dues have been steady and have not increased since 2017. The AOS is financially sound.

At this year's AAO meeting, we again had an AOS/ABO Joint Symposium on "What We Need to Know from the Past Year's Literature." Speakers included Judy Kim, MD, Bennie Jeng, MD, Michele Lim, MD, David Wilson, MD, R. Michael Siatkowski, MD, Suzanne Freitag, MD, M. Edward Wilson, MD, and Wendy Smith, MD. The speakers highlighted the past year's literature in their various subspecialties. I wish to thank all of the speakers this year and past years for participating in this symposium, which has helped raise the profile of the AOS.

The AOS contributes to the Heed Foundation Annual Retreat, as well as the Minority Ophthalmology Mentoring (MOM) Program. We are considering a donation to the AAO Truhlsen-Marmor Museum of the Eye, and a task force has been set up to evaluate a possible contribution.

We look forward to our Annual Meeting in person at the Broadmoor Hotel in Colorado Springs on Thursday, May 19 through Saturday, May 21. We will have an excellent Knapp Symposium on the "New Normal of Genetics of Ophthalmology," organized by Peter Netland, MD and a Second Symposium organized by Julia Haller, MD. There will be fun athletic events, including golf, tennis, and fly fishing.

Our membership continues to grow as we now have 241 active members and 143 emeritus members. There have now been nearly 50 theses published in the AJO since 2018. Having the AOS theses published in the AJO has been a big success. I wish to thank the thesis committee, chaired by Martine Jager MD, PhD, for their excellent work.

As you know, I will be stepping down as EVP after the meeting at the Broadmoor. This is full circle for me, as my first meeting as EVP was at the Broadmoor. We interviewed excellent candidates for the EVP position. Dr. David Wilson accepted the position, and I am confident that the AOS will continue to thrive under his leadership. I thank the Council, committees, and staff, in particular Amber Mendez. It has been a pleasure to work with all of you.

REPORT FROM THE COUNCIL CHAIR

EDWARD G. BUCKLEY, MD

Wearing masks, social distancing, quarantining, testing, and vaccinating are all words that have taken on new meaning during the last year. Our world has changed, probably forever. Our fragile existence has been highlighted and one of the dangers of our global environment has been brought front and center. We clearly must behave as one people to protect us all. COVID-19 and its effects will be with us for some time. Amidst all of the turmoil your AOS Council has been hard at work. Bill Mieler, Julia Haller, Preston Blomquist and Stephen McLeod served as AOS Council members this year. I have transitioned off the Council and Julia Haller is the new Council Chair. We welcomed David Wallace as the new Council member along with Anne Coleman as the new President. They have been engaged in leading your organization during this unprecedented time. Hans Grossniklaus served as both Executive Vice President and Editor for TAOS.

MEETING 2021

Last year when we cancelled the 2020 meeting at Torrey Pines most of us anticipated that things would be more "normal" by the 2021 meeting. Unfortunately, it appears that was too optimistic and the Spring AOS meeting was held virtually. The good news is that we are all becoming quite facile with these remote platforms, so the meeting was interesting and informative.

Jayne Weiss and the program committee planned the Knapp symposium around our collective COVID experience titled "What We Thought We Knew, What We Learned and Future Strategies." We were honored that Dr. Anthony Fauci gave the Marilyn Miller Lecture titled "COVID-19 in 2021: Lessons Learned and Remaining Challenges." Other speakers include Hugh Taylor, Stephen McLeod, Anat Galor, and the new director of the NEI, Michael Chiang.

We tried something different this year for the Saturday Symposium. There is a wealth of clinical experience at the AOS meeting that we do not tap into for the most part. So as a pilot we had a session which we called "I Wish I Hadn't Done That, I Wish I Hadn't Thought That, or I Wish I Had Thought That." The concept being we often learn more from our struggles than our successes or to highlight where someone had a major paradigm shift, an inspirational moment, that affected the way they practiced for that patient and their future ones. The symposium was well attended with lots of good comments. We might want to do something similar again.

COUNCIL ACTIVITY

Members of the Council met virtually to review: 1) petitions for AOS membership; 2) recommendations of various committees (e.g., New Member Committee, Thesis Committee, Program Committee [for the upcoming meeting], Communications Committee); 3) possible venues for future meetings; 4) petitions from AOS members (e.g., excused absences, requests for emeritus status); and 5) the financial status of the organization. The organization's finances remain quite strong and are reviewed biannually with representatives from Vanguard Assets Management. Hans Grossniklaus announced that he will be stepping down as the EVP. While all good things must come to an end, his wise counsel and dedication to the AOS will be sorely missed. We were fortunate to have an individual of his caliber and commitment at the helm. We have begun an active search for his replacement.

MEMBERSHIP

Due to the constant recruitment efforts of the AOS members, applications to join the Society remain robust. Applications from ophthalmologists based outside the United States are welcome. Please recall that the deadline for nomination letters for new members is April 30th. Nominees are expected to have made substantial contributions to the field. The primary nominator should assemble the information packet and solicit a seconding letter. If the primary nominator is a mentor of the nominee or works at the same department/organization, then two additional nominating letters are required. Council members vote on the nominees at the spring meeting. If the Council votes to approve a nominee, that individual is asked to submit an application for membership. When their application is approved by the Committee on Membership and the Council, they are invited to prepare a thesis, which must be completed within three years. Once a thesis is accepted, the candidate becomes a

member of the AOS. The AOS theses are published (online and in monthly issues) in the *American Journal of Ophthalmology* (AJO). In addition, the AJO publishes an annual supplement that contains all the theses accepted during the past year. Dr. Rich Parrish, Editor of the AJO, established this relationship with the AOS, and it has worked out beautifully. The intellectual discipline required to complete the thesis may underlie the fact that the AOS comprises some of the most distinguished, intellectually ambitious ophthalmologists in the world (243 Active Members).

THANKS

Serving the AOS has been an honor and privilege. I would like to thank Dr. Woody Van Meter, the 2020-21 AOS President and Dr. Hans Grossniklaus, the EVP and the AOS Council members for their support. In addition, a warm thanks to all of the many Council members who make the many needed contributions that result in this organization being so great and unique. A special thanks to Amber Mendez and Tim Losch for the AOS organizational support. They are true professionals, and we couldn't find better partners.

I am hopeful that I we will be able to be physically present for the AOS 2022 Meeting and look forward to seeing each of you then. Thank you for your support of this outstanding organization.

REPORT FROM THE COMMITTEE ON THESES

ELIAS I. TRABOULSI, MD, MED

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. Help was solicited from AJO editorial board members or AOS members if expertise was needed for a thesis outside the field of concentration of the theses committee members.

At the time of the 2021 annual meeting, decisions were made on 11 theses over the prior year.

Eighteen thesis proposals were reviewed.

Sincere thanks go to fellow committee members, Martine Jager and Stephen H. Tsang for their insightful comments and reviews as well as Hans Grossniklaus, Amber Mendez, and Sarah Duncan (Managing Editor, AJO) for their guidance and administrative support.

REPORT FROM THE COMMITTEE ON PROGRAMS

JAYNE S. WEISS, MD

The 2021 AOS Annual Meeting was held entirely virtually with contributions by Program Committee members Drs. Peter Netland, Sean Donahue, and Jennifer Lim.

On Friday, the Inaugural Marilyn T. Miller Lecture was delivered by Dr. Anthony Fauci on COVID-19 in 2021: Lessons Learned and Remaining Challenges. This was followed by the Knapp Symposium, I moderated on "What We Thought We Knew, What We Learned, and Future Strategies" which focused on the impact of the COVID 19 in ophthalmology with talks by Drs. Hugh Taylor, Stephen McLeod, Michael Chiang, and Anat Galor.

On Saturday, the Symposium "I Wish I Hadn't Done That, I Wish I Hadn't Thought That, or I Wish I Had Thought That!" moderated by Dr. Ed Buckley consisted of experts in the different subspecialties sharing their challenging cases. Speakers were Drs. Steven Newman, William Mieler, Peter Netland, Sean Donahue, Douglas Koch, George Bartley, and Michael Stewart.

The symposiums were followed by lively question session online.

38 abstracts were submitted for the scientific program with 20 accepted as virtual presentations.

The remaining 18 abstracts were invited for virtual poster presentations with 16 being presented.

These were available online for AOS registrants prior to the live virtual meeting.

REPORT FROM THE COMMITTEE ON MEMBERSHIP

ANTHONY C. ARNOLD, MD

This year the Committee on Membership (R.V. Paul Chan, Natalie Kerr, Judy Kim and myself) reviewed 16 complete applications, and unanimously recommended that all nominees be invited to prepare a thesis. The strength of the individual candidates' application was determined by the criteria as outlined below.

- National/International reputation
- Academic rank
- Peer-reviewed publications in last 5 years
- Ability to write thesis
- Boards or directorships
- Specialty(ies)
- Comments
- Sponsors
- Recommendations

Additional criteria discussed included:

- Grants (funding agencies)
- Teaching responsibilities
- Presentations within 5 years
- Scholarship
- Leadership
- Ethics
- Professionalism
- Communication skills

We felt the online application review process worked well. To evaluate potential for thesis completion, the committee felt that future applicants could be asked to provide insight to their potential area of study and resources available for a thesis. This non-binding statement could address access to research data, availability of statistical expertise, and time to complete the project.

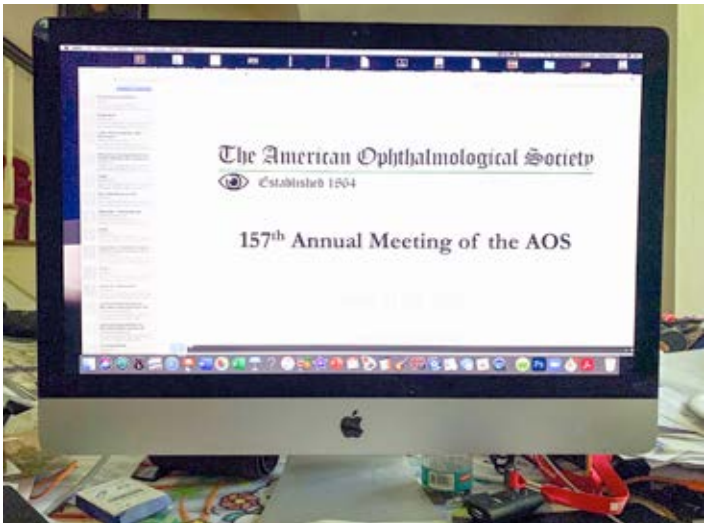
The future of the organization, as well as leadership in our profession, is dependent upon the continued growth of the AOS. All members are encouraged to identify potential candidates with robust records in teaching, research, clinical/surgical care, and service, and nominate them for membership in the Society. The deadline to submit membership nominations each year is April 30th.

REPORT OF THE ARCHIVIST PHOTOGRAPHER

RALPH C. EAGLE, JR, MD

I attended the One Hundred Fifty-Seventh Annual Meeting of the American Ophthalmological Society virtually using my 27-inch Apple iMac® home computer. I was able to assemble a significant number of digital images of the virtual meeting and used 250 of them to make a photoshow for the members-only meeting photo section area of the AOS website. Many of the images I captured were "screen grabs." In other instances, I photographed the computer screen with my IPhone. (One of my screen grabs shows me holding my phone.) I used Adobe Photoshop® to crop and enhance many of the images, as there was significant variation in the quality of the content streamed at the meeting. Individuals who were pictured included 2021 AOS President Woodford Van Meter, Inaugural Marilyn T. Miller Lecturer Anthony S. Fauci, MD and AOS medalist Peter R. Laibson and his wife Ruth, who pinned-on his medal remotely in Philadelphia. The photoshow started with my favorite photo of 2020 AOS President Emily Chew. Images of new members were "grabbed" from their new member presentations. Traditional AOS book-signing photos hopefully will be taken at the 2022 Meeting in Colorado Springs. The photoshow also comprises group photos of Knapp Symposium and Saturday Symposium speakers and images of moderators, presenters and discussants from the online program as well as interesting photogenic content from their presentations. Images of the poster session and the artistic soiree, including the performers and Bradley Black's beautifully crafted introductory segments also were included. The backload of formal new member photos that need to be taken assures that I will be quite busy at future in-person meetings of the AOS.

New member Ursula Schmidt-Erfurt



Bradley Black in the time of Corona

REPORT FROM THE COMMITTEE ON EMERITI

THOMAS D. FRANCE, MD

The Annual Emeritus Luncheon during the AOS Annual Meeting was not held this year due to the meeting being entirely virtual. We look forward to welcoming AOS Emeritus members and their spouses to the luncheon in 2022 at The Broadmoor in Colorado Springs, Colorado.

I regret to inform you of the passing of the following AOS members since my last *AOS Transactions* report in 2020:

Taylor Asbury, MD	Cincinnati, OH	Member since 1966
Jules L. Baum, MD	Bethesda, MD	Member since 1982
George W. Blankenship, MD	Hilton Head, NC	Member since 1986
Frederick A. Jakobiec, MD	Boston, MA	Member since 1984
Arthur Jampolsky, MD	San Francisco, CA	Member since 1970
Alan M. Laties, MD	N. Fort Meyers, FL	Member since 1974
Marilyn T. Miller, MD	Holland, MI	Member since 1991
Stanley M. Truhlsen, MD	Omaha, NE	Member since 1965
Robert B. Welch, MD	Baltimore, MD	Member since 1970

REPORT FROM THE COMMITTEE ON NEW MEMBERS

DAVID K. WALLACE, MD, MPH

THE FOLLOWING NEW MEMBERS WERE WELCOMED TO THE AOS THIS YEAR. BECAUSE THE 2020 ANNUAL MEETING WAS CANCELLED, AND THE 2021 ANNUAL MEETING WAS VIRTUAL, ALL NEW MEMBERS ACCEPTED AFTER THE 2019 MEETING WILL BE WELCOMED DURING THE 2022 ANNUAL MEETING OF THE AOS.

Audina M. Berrocal, MD
- Bascom Palmer Eye Institute
- **Specialty:** Retina/Vitreous, and Administration/ Organization Leadership
- **Thesis:** *Retinopathy of Prematurity: Advances in the Screening and Treatment of Retinopathy of Prematurity Using a Single Center Approach*

Steven J. Gedde, MD
- Bascom Palmer Eye Institute
- **Specialty:** Glaucoma
- **Thesis:** *Factors in Influencing Career Decisions and Satisfaction Among Newly Practicing Ophthalmologists*

Jeffrey Goldberg, MD
- Byers Eye Institute, Stanford University
- **Specialty:** Glaucoma
- **Thesis:** *Phase 1b Randomized Controlled Study of Topical Recombinant Human Nerve Growth Factor (rhNGF) for Neuroenhancement in Glaucoma*

G. Baker Hubbard, MD
- Emory Eye Center
- **Specialty:** Retina/Vitreous, and Ocular Oncology
- **Thesis:** *Analysis of Predisposing Clinical Features for Worsening Traction After Treatment of Familial Exudative Vitreoretinopathy in Children*

Christopher T. Leffler, MD
- Virginia Commonwealth University
- **Specialty:** Pediatric Ophthalmology & Strabismus, and Comprehensive Ophthalmology
- **Thesis:** *The First Cataract Surgeons in the British Isles*

Thomas M. Lietman, MD
- UC San Francisco
- **Specialty:** Cornea/External Disease, and International Ophthalmology
- **Thesis:** *Frequency of Mass Azithromycin Distribution for Ocular Chlamydia in a Trachoma Endemic Region of Ethiopia: A Cluster Randomized Trial*

Pradeep Y. Ramulu, MD, MHS, PhD
- Hopkins Wilmer Eye Institute
- **Specialty:** Glaucoma
- **Thesis:** *Environmental Features Contributing to Falls in Persons with Vision Impairment: The Role of Home Lighting and Home Hazards*

José-Alain Sahel, MD
- The Eye and Ear Institute
- **Specialty:** Retina/Vitreous, and Ophthalmic Genetics
- **Thesis:** *Assessing Photoreceptor Status in Retinal Dystrophies: From High-Resolution Imaging to Functional Vision*

Lucia Sobrin, MD, MPH
- Massachusetts Eye and Ear Infirmary
- **Specialty:** Uveitis/Immunology, and Retina/Vitreous
- **Thesis:** *Gene Set Environment Analyses Identify Pathways Involved in Genetic Risk for Diabetic Retinopathy*

Donny W. Suh, MD, FAAP, MBA, FACS
- Gavin Herbert Eye Institute, UC Irvine
- **Specialty:** Pediatric Ophthalmology & Strabismus
- **Thesis:** *Determining the Tractional Forces on Vitreoretinal Interface Using a Computer Simulation Model in Abusive Head Trauma*

Jeremiah P. Tao, MD
- Gavin Herbert Eye Institute, UC Irvine
- **Specialty:** Oculofacial Plastics/Reconstructive
- **Thesis:** *A Digital Microscreen for the Enhanced Appearance of Ocular Prosthetic Motility*

Russell N. Van Gelder, MD
- University of Washington
- **Specialty:** Uveitis/Immunology, and Retina – Medical Only
- **Thesis:** *Molecular and Clinical Characterization of Human Adenovirus E4-Associated Conjunctivitis*

Robert W. Weisenthal, MD
- Scheie Eye Institute
- **Specialty:** Cornea/External Disease, and Refractive Surgery
- **Thesis:** *Long-term Outcomes in Fellow Eyes Comparing DSAEK and DMEK for Treatment of Fuchs Corneal Dystrophy*

REPORT FROM THE COMMITTEE ON PRIZES

ALFRED SOMMER, MD, MHS

The Committee on Prizes is charged with selecting the Awardee of the AOS Medal and presenting the Award at the Annual Meeting banquet. The Committee selected a recipient for 2020, but because of the Covid pandemic, the Committee recommended that the selected recipient receive the medal at the 2021 meeting instead. The AOS 2021 meeting was held virtually, and the Award, now re-named by the Council as the "AOS Medal", was awarded virtually. The 2020/21 Committee was comprised of Drs. Alfred Sommer, Chair, Hugh Taylor, George Spaeth, and Joan Miller. (The presence of 4 instead of 3 committee members resulted from postponing the Award from 2020 to 2021; beginning with the 2022 Medal, the committee will revert back to 3 members, as its 2020/2021 chair rotates off).

The AOS Medal is awarded to recognize one or more of the following accomplishments: a discovery or innovation that suddenly advances the progress of ophthalmology in all parts of the world; outstanding original investigations in ophthalmology; significant contributions as an ophthalmic educator; or meritorious and remarkable service to ophthalmology.

Repeated E-mail communications were sent to AOS membership requesting nominations for the Medal. Nominations were received from 11 AOS members; three individuals received two nominations each. The Committee reviewed the nominations of the 8 individuals who received one or more nominations; in addition, the Committee considered all members of the AOS, in addition to outstanding individuals not members, in an attempt to ensure the recipient would best represent the attributes for which the Medal is bestowed, regardless of whether they had been nominated or were a member, or not.

The committee did much of its business by email, leading up to a conference call in late November. The committee unanimously selected Dr. Peter Laibson to receive the 2021 AOS Medal.

Born in New York, Peter Attended State University of New York Downstate Medical School, did his ophthalmology residency at the Wills Eye Institute, and was invited by Claus Dohlman to join him at the Mass. Eye and Ear Infirmary for a corneal fellowship. Peter returned to Wills, where he played a critical role in establishing its now renowned corneal service. In addition to his extensive teaching and clinical practice, Peter published over 300 articles on corneal diseases and their treatment, particularly early, insightful work on herpes keratitis and the value of IDU in its treatment; he was the first to describe sub-epithelial infiltrates in adenoviral keratoconjunctivitis and their successful treatment with topical steroids; and coined the term, "map-dot fingerprint dystrophy" among many other contributions.

The AOS Medal was presented to Dr. Laibson at the Annual Meeting, virtually, when his wife, Ruth (who'd been secretly sent the medal ahead of time) pinned it on his pajama shirt while they watched the proceedings on Zoom, May 22, 2021. He is the 87th recipient of the Award.

2021 AOS Medalist Peter R. Laibson, MD
and Ruth Laibson

REPORT FROM THE COMMITTEE ON AUDITS

MARCO ZARBIN, MD, PHD

MINUTES

I. WELCOME AND CALL TO ORDER

Dr. Marco Zarbin, AOS Audit Committee Chair, called the meeting to order at 3:00 p.m. PDT on Thursday, July 15, 2021. The following Committee members, staff and guests were present:

Committee

Marco Zarbin, MD – Audit Committee Chair

Timothy Olsen, MD – Audit Committee Member

Hans E. Grossniklaus, MD – Executive Vice President

Staff

Amber J. Mendez – AOS, Client Services Manager

Timothy Losch – Director, SF AMS

Mike Roll – Finance Director, American Academy of Ophthalmology

Audit Partners

Rianne Suico – Senior Manager, Moss Adams

II. REVIEW OF FISCAL YEAR 2019 AUDITED FINANCIAL STATEMENTS

Mr. Mike Roll provided an overview of the 2020 fiscal year end audited financial statements. Mr. Roll explained that since the financials are reported on a comparative basis, statements where amounts were reported included current and prior year balances. A summary of the data is reported below in tabulated form.

Item	2019	2020
Change in net assets from operations	($340,559)	($217,892)
Net investment income	$225,968	$170,116
Net gain on investments	$1,377,560	$1,150,030
Change in net assets	$1,262,969	$1,102,254
Net assets beginning of year	$8,722,642	$9,985,611
Net assets end of year	$9,985,611	$11,087,865

Although management expenses also had a slight increase in the 2020 year, the annual meeting and Council meeting expenses decreased due to the cancellation of the 2020 annual meeting and the fall Council Meeting being virtual.

Investment income increased by $23,000 due to interest and dividend earned on investments and improved market conditions. Net realized and unrealized gains increased by $2.0 million due to an increase in market values in 2019.

As a result, Ms. Paw reported that the AOS total net assets increased by $1.3 million due to the above actions.

ACTION: The Committee accepted Mr. Roll's report as presented.

III. AUDIT PRESENTATION

Ms. Rianne Suico of Moss Adams presented the Report of Independent Auditors, which stated the opinion 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. Zarbin excused SF AMS staff and the American Academy of Ophthalmology Finance staff and the Committee met in an executive session with Ms. Suico of Moss Adams. The Committee did not identify any irregularities. Dr. Zarbin confirmed that processes did not warrant further investigation and that a separate audit on internal controls was not necessary.

V. ADJOURNMENT

Dr. Zarbin adjourned the meeting of the Audit Committee at 3:40 p.m. PDT on Thursday, July 15, 2021.

AOS COUNCIL APPOINTMENTS

2021-2022

AOS President – **Anne L. Coleman**

AOS Council – **David K. Wallace**

Executive Vice President –
Hans E. Grossniklaus to cont.

Editor – **Hans E. Grossniklaus** to cont.

Member, Committee on Theses –
Fredericus van Kuijk to join
Martine J. Jager, Chair
Stephen H. Tsang

Member, Committee on Programs –
Carol L. Karp to join
Peter A. Netland, Chair
Sean P. Donahue
Jennifer I. Lim

Member, Committee on Membership –
Nicholas J. Volpe to join
Natalie C. Kerr, Chair
Judy E. Kim
R.V. Paul Chan

Members, Committee on Communications –
H. Nida Sen to join
R.V. Paul Chan, Chair
Anne L. Coleman
Bennie H. Jeng

Committee on New Members –
William J. Dupps to join
Christina Flaxel
Edward. J. Wladis

Member, Committee on Prizes
Hugh R. Taylor, Chair
George L. Spaeth
Joan W. Miller

Chair, Committee on Emeriti –
Thomas D. France to cont.

Committee on Athletics –
Frederick W. Fraunfelder and
Woodford S. Van Meter to cont

Chair, Audit Committee –
Edward G. Buckley to join
Timothy W. Olsen
Hans E. Grossniklaus

Investment Committee –
Hans E. Grossniklaus to cont.;
Julia A. Haller and
Anne L. Coleman to join

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

Representative to American Academy of Ophthalmology Council –
Sophie J. Bakri and
Esen K. Akpek alt. to continue

Representative to the International Council of Ophthalmology – **Neeru Gupta** to join

Representative to the American College of Surgeons –
Robert A. Goldberg; and
George L. Spaeth alt. to cont.

Representative to the Pan American Association of Ophthalmology – **Eduardo C. Alfonso** to cont.

Representatives to the American Orthoptic Council –
James D. Reynolds;
Steven M. Archer; and
Kanwal Nischal to cont.

Representative to IJCAHPO – **Teresa C. Chen** to cont.

Representatives to the Heed Ophthalmic Foundation –
David J. Wilson;
Eduardo C. Alfonso; and alt.
Julia A. Haller to cont.

Parliamentarian – **Peter A. Netland** to cont.

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

SOPHIE J. BAKRI, MD

This year the AAO Council meeting was held in person at the American Academy of Ophthalmology in New Orleans, Louisiana in November 2021. I attended as AOS Councilor to the AAO.

Billing and coding was discussed in terms of E&M equity as well as the need for balancing the healthcare budget. In addition, physician payment outlook was discussed, as well as pre-authorizations.

The future of education, especially in terms of online platforms and virtual education was addressed. It was acknowledged that physicians also highly value interpersonal interactions and in-person learning.

The importance of the Surgical Scope fund was emphasized and the relationship between ophthalmology and optometry was again discussed. The State and Subspecialty sections also met to discuss any local issues.

REPORT FROM THE REPRESENTATIVE TO THE AMERICAN COLLEGE OF SURGEONS

ROBERT A. GOLDBERG, MD

The American College of Surgeons is dedicated to improving the care of the surgical patient and to safeguarding standards of care in an optimal and ethical practice environment. The College carries out its mission through a wide scope of activities, including physician education, public education, development of safety and quality programs, and advocacy.

The Ophthalmology Advisory Council meets annually. Activities include education (Don Kikkawa and I put on a course representing Ophthalmology at this year's meeting in Washington DC), advocacy (the ACS stands by Ophthalmology in the Surgery by Surgeons scope of practice issue, as well as appropriate valuation of surgical global fee), quality (we participated in trauma guidelines), and physician health.

Although Ophthalmologists comprise only 2% of the ACS membership, our voice and our input are important. We initiated more than 20 Ophthalmologists this year. ACS participation fosters our connection to the greater House of Surgery and optimizes the opportunities to achieve our common goals.

REPORT FROM THE REPRESENTATIVE TO THE AMERICAN ORTHOPTIC COUNCIL

JAMES D. REYNOLDS, MD

The 2020-2021 year has been eventful for the AOC.

I. AOS REPRESENTATION ON THE AOC

The American Orthoptic Council is an organization supported by 7 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)

Current AOS representatives to the AOC include:

- James Reynolds, MD
- Steve Archer, MD
- Kanwal 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.

James Reynolds, Ken Nischal and Steve Archer are actively involved in committees and all served as examiners this past year.

Ken Nischal – serves on the Accreditation, Exam and Nominating Committees and is Vice Chair of Program.

Steve Archer – is the Treasurer of AOC and chairs the Ethics committee and also serves on the Accreditation, Bylaws, and Exam committees.

James Reynolds – has served on most of the AOC committees over the years and served as President in the past as well as the editor of the American Orthoptic Journal. He currently serves on the Accreditation, Bylaws and ad hoc Program and Student Support committee and as the Vice Chair of the Program Committee moderated the 2021 AAPOS workshop entitled ROP: A Team Approach.

Both Steve Archer and James Reynolds are heavily involved in the Orthoptic Fellowship Programs at their institutions.

James Reynolds and Ken Nischal sit 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.

II. 2021 NEWLY CERTIFIED ORTHOPTISTS

On Sunday, September 19, the AOC oral practical exams to certify orthoptists was again carried out virtually via zoom format. A total of 18 candidates sat for the oral/practical exam and all 18 passed, achieving certification.

III. ORTHOPTIC FELLOWSHIP PROGRAMS

There are currently sixteen AOC accredited orthoptic fellowship programs in the U.S. Fifteen were reaccredited and one new program was site visited virtually and approved (see attached list).

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. Members of AAPOS, ARVO, COC, TCOS, and other ophthalmology and orthoptist organizations will have access to a substantially discounted subscription rate of $55 (Regular) or $100 (Supporter). The normal full price subscription rate for online with print is $250. As a new journal, we expect our initial impact factor to improve significantly over time.

V. 2021 AAPOS WORKSHOP – SUBMITTED BY THE AOC PROGRAM CHAIR AND MODERATORS, APRIL 9, 2021

ROP: A Team Approach

Workshop Chairs: James D. Reynolds, MD (AOS Rep); David Hodgetts, CO.

Speakers were Certified Orthoptists and ophthalmologists

VI. 2021 AAO/AOC/AACO SUNDAY SYMPOSIUM, SUNDAY, NOVEMBER 14, 2021

This will be part of the AAO virtual meeting

Title: Acquired Diplopia in Adults

Chairs/moderators: Alex Christoff, CO [President of AACO]; Mark Borchert, MD

VII. ACCREDITATION

The AOC application to the Commission on Accreditation of Allied Health Education Programs (CAAHEP) for the creation of the Committee on Accreditation of Orthoptic Fellowship Programs (CoA-OFP) was formally accepted in April of 2018. Through external accreditation and a formal process of continuous quality review by CAAHEP, the quality and reputation of the orthoptic profession will become stronger. This continues to be a work in progress until such time as the transition from AOC to CAAHEP accreditation.

CAAHEP Accreditation [Commission on Accreditation of Allied Health Education Programs]

CAAHEP approved the formation of the Committee of Accreditation of Orthoptic Fellowship Programs [CoA-OFP] under its jurisdiction. The CoA-OFP is in the final stages of having its standards and guidelines formally approved. The process of accrediting and re-accrediting Orthoptic Fellowship Programs will be transitioned from an activity of the American Orthoptic Council to this third-party organization. This has been a long process that is coming to fruition and was felt to be a good step towards separating the oversight of accrediting programs and certifying orthoptist candidates who study in the Orthoptic programs.

The Council will continue to be in charge of the certifying exams and certification and re-certification of certified orthoptists.

VIII. Core Competency Document

The AOC has finalized a core competency document, outlining the clinical skill expectations 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. This document is available for a nominal fee from the home office.

IX. Annual Business Meeting

We held our annual business meeting of all Council members on Wednesday, October 13, 2021 by Zoom conferencing. The annual meeting contained annual officer reports as well as committee reports. New members were welcomed (Alejandra de Alba Campomanes, MD representing AAO and Kaajal Nanda, CO representing AAP].

Highlights included candidate exam results; two amendments to Bylaws; an update on the evolution and near completion of our new accreditation procedure; and various committee reports.

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

WILLIAM F. MIELER, MD

1. GOVERNANCE INITIATIVES

Elected and installed new Directors for IJCAHPO Board of Directors for 2020-21:

- Two Directors-at-Large: Barbara Harris, PA, MBA, COT, OSC; and Kent Rose, COMT

Welcomed new Councilors – Regular and Affiliate:

- Carla Blackburn, COMT, CDOS, ROUB – COTP
- Teresa Chen, MD – AOS
- Joann Kang, MD – ECLA
- Edward Lim, MD – ASRS
- Gary Legault, MD, MAJ (P), MC – SMO
- Vasudha Panday, MD – ASCRS
- Omondi Nyong'o, MD – AOC
- Holly Cheshier, CRA, COMT, OCT-C – OPS
- Maria Pryde, MSc, COMT, OC(C) - TCOS
- Veronica Plessinger, COT - ATPO

Awarded the 2020 Statesmanship Award to Raymond Stein, MD, FRCSC.

2. MAJOR INITIATIVES FOR THE YEAR

Transitioned all 2020-2021 on-site continuing education programs to a virtual platform.

Partnered with the Ophthalmic Outpatient Surgery Society to develop new education and certification for surgical processors and surgical assistants.

Published first International AOP Salary & Benefits Study with over 7,000 respondents from 32 countries.*

Launched first Certificant of Completion for Visual Fields.

3. GOVERNMENTAL AND PUBLIC AFFAIRS INITIATIVES

Conducted 8 free webinars on AI for Technicians, Eye Trauma, AMD Patient Management, Women's Eye Health, and Dry AMD from the Patient's Perspective.

Promoted AAO's EyeSmart monthly campaigns to certificants.

Worked with the Oregon Academy of Ophthalmology to amend legislative language that would have adversely affected IJCAHPO certified surgical assistants/technicians.

IJCAHPO joined the New York State Ophthalmological Society in support of amended language to the eye drop instillation bill that previously passed in the legislature.

Secured sponsors and grants for ACE, Regional CE Programs, and educational programs.

4. CERTIFICATION INITIATIVES

Certified a total number of certificants – 33,909 worldwide.

Delivering COT Skill and COMT Performance examinations via Zoom.

Launched an online Certification and Recertification application process.

Developed and delivered new COA, COT and COMT Study Guides and Quick Study Cards

Transitioning from professional test centers to an online proctored examination environment

Initiated the Ophthalmic Surgical Assisting Job Task Analysis

New Certifications:

- Certified Refractionist (CR)
- National Registered Contact Lens Fitter (NRCLF)
- National Registered Dispensing Optician (NRDO)

Launched the following Certificates of Completion:

- Ophthalmic Surgical Processor (OSP)
- Visual Fields

5. EDUCATION & E-LEARNING INITIATIVES

IJCAHPO hosted its first Virtual Broadcast and On-Demand *48th Annual Continuing Education Program* on November 7, 14 and 15, with on-demand open until December 30, 2020.

- Gary N. Holland, MD, Professor, David Geffen School of Medicine at UCLA presented the Harold A. Stein, MD, Lecture on COVID-19 and Other Emerging Infectious Diseases.

Presented Capstone Lecture Series: Innovations in Ophthalmology by leading ophthalmologists.

Partnered with AAOE on offering a Coding Camp program.

Conducted all Continuing Education Programs as virtual programs in 2020-2021.

Conducted monthly CE Webinars, and online courses for the entire eye care team.

Conducted Certification Examination Prep Courses online for the COA, the COT, and COMT.

6. FOUNDATION INITIATIVES

Awarded 120 Training Program Scholarships for more than $10,000 to ophthalmic technicians' academic education and five orthoptists' scholarships totaling $1,100.

Awarded 7 certification and continuing education grants for more than $1,800.

Awarded 28 scholarships to 2020 ACE Program to AOP adversely and economically impacted.

Harold A. Stein Prize for Best Scientific Paper had no award recipients.

Awarded the 2020 Virginia S. Boyce Humanitarian award to Michelle P. Herrin, COMT, orthoptist.

7. INTERNATIONAL INITIATIVES

IJCAHPO and the Singapore National Eye Center are partnering on AOP training in SE Asia.

Worked with AOP training programs in Nigeria, Central Africa, Fiji on accreditation.

Certified 42 international AOP candidates.

8. CAREER ADVANCEMENT INITIATIVES

Published first International AOP Salary & Benefits Study with over 7,000 respondents.

Launched redesigned Discover Eye Careers website.

Launched new Career Center with ophthalmic technician job board.

Presented 4th year at virtual HOSA - Health Occupations Students of America and Chapter meetings.

Expand awareness of the ophthalmic assisting profession to increase the potential workforce.

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

EDUARDO C. ALFONSO, MD

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

Eduardo Mayorga MD (Argentina) chairs the Pan American Committee of the University Professors of Ophthalmology ***(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. Mayorga, as Chair of the PAAO eLearning Committee, 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 students to take for a modest fee. The complete list of archived webinars and the schedule of upcoming webinars and asynchronous courses are available on the PAAO's website www.paao.org.

2. FELLOWSHIPS COMMITTEE

Lihteh Wu MD (Costa Rica) chairs the ***Fellowships Committee***. Scholarships are funded from a variety of sources. Because of COVID-19, most training programs were put on hold. In 2021 approximately $30,000 in scholarships and other awards were given. In addition to using its Pan-American Foundation unrestricted resources, funding for these programs is provided by personal donations to the Pan-American Foundation, from donations from industry partners and private or family foundations, such as the Retina Research Foundation, the Tim & Judith Sear Foundation and the David E.I. Pyott Foundation, and partnering institutions such as University of Texas, Southwestern, in Dallas, Texas.

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. Because of COVID-19, this program was put on hold as most meetings were postponed, canceled, or went virtual. No travel awards were given in 2021.

4. PAAO-YO LAUNCHES ITS OWN WEBSITE

Camila Ventura MD (Brazil) and Jorge Fortun MD (USA) co-chair the PAAO-YO program. The purpose of this program is to offer education and networking opportunities to young ophthalmologists around the world. PAAO provided support for launching its own website https://paaoyo.paao.org/. The PAAO-YO are organizing one webinar per month and are collaborating with the YO's of the American Academy of Ophthalmology.

5. 2021 MEETINGS & EDUCATIONAL ACTIVITIES

Continuing education and prevention of blindness programs are the primary mission for the PAAO. Dr. Mayorga launched a series of very successful free webinars in English, Spanish and Portuguese that has generated much interest in a variety of subspecialties. Approximately two webinars are presented per month. Our face-to-face educational activities were greatly impacted by COVID-19. The 2021 cycle of the PAAO's leadership development course was canceled.

- **18th Pan-American Research Day**
  Virtual meeting in collaboration with ARVO. July 10, 2021 was the Anterior Segment Course and July 17, 2021 was the Poster Segment Course.
- **35th Lo Mejor de la AAO en Español**
  Virtual meeting on Saturday, November 20, 2021.

REPORT FROM THE REPRESENTATIVE TO THE INTERNATIONAL COUNCIL OF OPHTHALMOLOGY

NEERU GUPTA, MD, PHD, MBA

The International Council of Ophthalmology (ICO) is committed to improving eye health worldwide through its partnership with over 180 national, regional and subspecialty member societies. High quality eye care is promoted through ICO educational opportunities and resources, including its flagship event the biennial World Ophthalmology Congress, along with its international examination program, provision of ICO fellowships, development of curricula, guidelines, provision of member society development support and promotion of member society activities.

This year marks the 26th Anniversary of the ICO Examinations and to date, almost 50,000 ophthalmologists in 84 countries at 137 testing centers have taken the exams to further their careers, evaluate their knowledge, and meet requirements in their countries to practice ophthalmology.

The ICO Fellowship Program provides important opportunities for ophthalmologists primarily from low-resource settings, to improve practical skills and enhance their knowledge of ophthalmology before returning to their communities. To date, 1,240 ophthalmologists from 84 low-resource countries have received ICO fellowships, hosted by 136 hospitals and universities across 33 countries.

Due to the COVID-19 pandemic, the 2020 World Ophthalmology Congress (WOC2020) held on June 26-29th was the first online global gathering in ophthalmology. With over 7,000 participants from 157 countries, the scientific contributions of our member societies and international leaders were instrumental in contributing to the success of WOC2020 Virtual®.

Preparations for the WOC2022 Sept 9-12th are well underway and societies will be represented through invited symposia on a topic of their choice. The ICO has developed a new ICO Portal on their website with free access to the latest developments in ophthalmology. In addition, member society journals including the Transactions of the American Ophthalmology Society are highlighted and can be viewed through the ICO Portal.

Recommendation: The AOS continue its support and membership in the ICO.

NECROLOGY IN MEMORIUM

TAYLOR ASBURY, MD

Taylor Asbury, MD, member of the American Ophthalmological Society since 1966, died Nov. 9. He was 96. He served the AOS as Chairman of Social Committee, 1970-1972, Chairman of Program Committee, 1973-1974, Member of Council, 1975-1980, Member of Thesis Committee, 1995-1997 [Chairman, 1997].

Asbury, who was known as "Tuck," graduated from Yale University in 1946 and the University of Cincinnati Medical School in 1949. He completed his residency at the University of California Medical Center in San Francisco following two years of service in the U.S. Navy.

Asbury returned to Cincinnati in 1956 and joined the College of Medicine faculty as an instructor in the Department of Ophthalmology. He spent his entire career At the University of Cincinnati, serving for more than 60 years. In 1956, he helped establish the Cincinnati Eye Bank for Sight Restoration, serving as its director for more than 50 years.

In 1956, Asbury was appointed residency program director of the Department of Ophthalmology at the University of Cincinnati and served as Professor and Chairman of the department from 1966 to 1977. He later would service two separate periods as acting chair of the department in the 1990s. He served as the department's Director for Development from 1999-2018.

Asbury co-authored and co-edited the first edition in 1958 of "General Ophthalmology," which is now in its 19th edition. This book is one of the most widely read textbooks on ophthalmology used by medical students and beginning residents during the past 60 years.

Asbury's involvement in medical education was recognized in 1966 by his election as a member to the American Eye Study Club, an organization which he served as president in 1971. He was an associate examiner for the American Board of Ophthalmology from 1964-1981. He received the UC Award of Excellence in 2000 and the Distinguished Service Award from the Eye Bank Association of America in 2007.

A champion of fundraising efforts for his Department of Ophthalmology, Asbury played a critical role in establishing several endowed chairs and long-term support for the Cincinnati Eye Bank. Beginning in 1990, he chaired the effort to raise funds for the creation of the Mary Knight Asbury Chair of Ophthalmic Pathology and Ocular Oncology. In 2013, the University of Cincinnati Department of Ophthalmology established the Taylor Asbury, MD Endowed Chair in Comprehensive Ophthalmology.

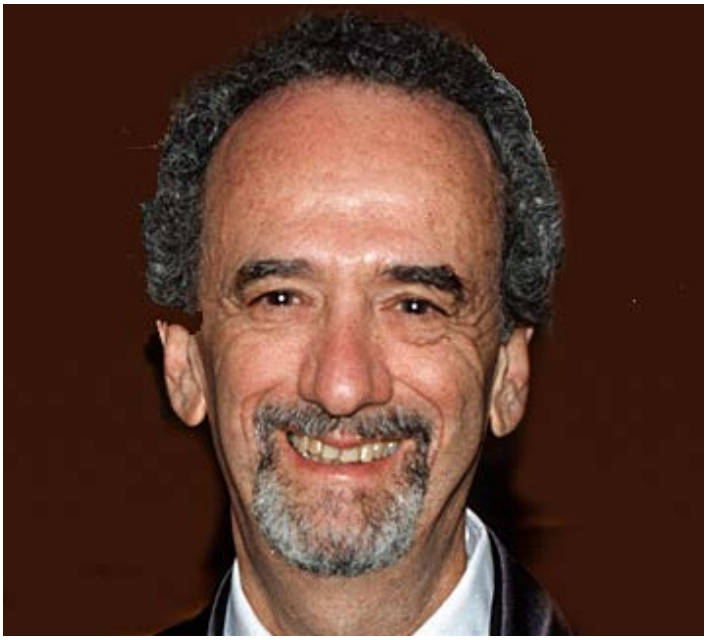
Outside of medicine, Asbury was very involved in sports. He captained the Yale University baseball team and found time during his medical education to play baseball with the UC Bearcats. In 1947 he was signed by the Boston Braves. For over 70 years he was involved in breeding and racing thoroughbreds. He also once was his Golf Club's golf champion.

Asbury is survived by his wife, Cornelia "Connie" Holden Asbury, his daughters Mary, Janet, Helen, Carolyn and Anne, six grandchildren and two great grandchildren.

Written By,

KARL C. GOLNIK, MD
Cincinnati, OH

JULES L. BAUM, MD



Jules L. Baum, MD, corneal scientist, teacher, mentor and intellectual, died on December 27, 2021 at the age of 90 in Bethesda, Maryland.

Dr. Baum was born in Brooklyn, NY and attended Polytechnic Preparatory Institute before graduating from Dartmouth College in 1952 and Tufts School of Medicine in 1956. He received an MS in Ophthalmology in 1962 from the New York University School of Medicine and completed his residency at Bellevue Hospital in 1964. Following this, he was a National Institute of Health Fellow with Dr. Claes Dohlman at the Massachusetts Eye and Ear Infirmary Corneal Unit, where I first met him as we both served as fellows with Dr. Dohlman.

Jules returned to Bellevue after his fellowship at MEEI to join the faculty as an assistant professor under Dr. Goodwin Breinen. Dr. Ramon Castroviejo was also an attending physician on the corneal faculty at Bellevue at that time. Jules moved to Tufts New England Medical Center in 1968 at the invitation of Dr. Bernard Schwartz and remained there for the rest of his full-time academic career, achieving full professorship status in 1974.

Jules rapidly advanced in the corneal specialty, serving as executive secretary and later president of the Castroviejo Society (now International Corneal Society). He also served as President of the Ocular Microbiology and Immunology Group (OMIG) and was a trustee of the corneal section and then Vice President of ARVO. He served on numerous editorial boards and was supported in his corneal research by the NIH for over 25 years. He received the Senior Honor Award of the American Academy of Ophthalmology in 1990 and the Alcon Research Institute Award in 1991. In 1997 he was the Castroviejo Corneal Medalist and gave the Thygeson Lecture at OMIG.

NIH funding supported Jules' basic and clinical research into corneal infectious ocular surface disease and the dry eye, resulting in over 200 published papers and chapters. Throughout his career he was a sought-after lecturer and teacher and collaborated with scientists at Tufts and other institutions around the globe. The organization and supervision of a corneal fellowship at Tufts was among his important achievements. Dr. Gullapalli N Rao, founder of the L.V. Prasad Eye Institute in Hyderabad, India, was one of his many fellows of which he was justly very proud.

In addition to his teaching, clinical and research interests, Jules was an oenophile of note. His passion for wine dated back to his service in the United States Army as a captain in France, prior to his residency at Bellevue. He became a Conferie des Chevaliers du Tastevin and a member of the Chain des Rotisseurs and was primarily responsible for dinner arrangements for his many colleagues at ARVO, AAO and other ophthalmic meetings. Jules' was also interested in poetry and was honored to be a selected participant in a seminar at Dartmouth led by Robert Frost. Jules played tennis and competed at the AOS and ARVO meetings. He was an avid fan of the Brooklyn Dodgers until they moved to Los Angeles in 1957. His wife, Laura, surprised him in 1996 with a birthday present to attend the Dodger Fantasy Camp in Vero Beach, Florida, where he played ball with Carl Erskine and Don Newcomb, among other former Brooklyn Dodgers.

Jules will be remembered as an outstanding teacher and investigator, a highly engaged participant in scientific meetings to which he always contributed enthusiastically, and a warm and collegial friend to the ophthalmic community. He leaves behind his loving wife, Laura, his son and daughter-in-law Jeffrey Baum and Dr. Gulsun Gul, his daughter and late son-in law, Alison and Erik Hook, as well as two adult stepchildren and their spouses, Alexander and Kristen Klabin and Samantha and Dr. John Carroll, and ten grandchildren.

Written By,

PETER R. LAIBSON, MD
Philadelphia, PA

FREDERICK A. JAKOBIEC, MD, DSCI

On November 14, 2020, ophthalmology and ophthalmic pathology lost one of its most brilliant, erudite, productive, and charismatic leaders and teachers. Frederick A. Jakobiec, MD, DSci passed away peacefully in a Boston Hospital from the complication of chronic illness.

Fred was born in Manchester, New Hampshire in 1942. Neither his father Thaddeus, who was Polish nor his mother Beatrice, who was Irish, had gone to college. Fred attended local Catholic parochial schools and was valedictorian of his high school class. He states that the pastor of his local church introduced him to fine art and classical music. He was accepted by Yale, Dartmouth and Harvard, but chose Harvard because it was closest to his home and held in high esteem by his parents. He graduated magna cum laude from Harvard and wrote an honors thesis on the foundation of the French Academy of Sciences.

Fred received his medical degree from Harvard Medical School and interned at Stanford. He trained in ophthalmology at Columbia/Harkness Eye Institute. His decision to specialize in ophthalmology undoubtedly was influenced by his brother Thaddeus who was blind from birth from retinopathy of prematurity. Prior to his ophthalmology residency, Fred was a research fellow in pathology at Columbia and received a Doctorate of Medical Science degree. His thesis was on the Ultrastructure of Ocular and Orbital Neoplasia. Fred subsequently decided to become double-boarded in pathology as well as ophthalmology and was a pathology resident in Donald West King's department at Columbia. During his pathology residency, Fred wrote and edited a book on diseases of the orbit with Dr. Ira Jones that was incorporated into the Duane ophthalmology textbook. Fred was an ophthalmic pathology fellow in Dr. Lorenz Zimmerman's department at the Armed Forces Institute of Pathology in Washington, DC in 1974-1976. During his fellowship, Fred was first author (with Lorenz Zimmerman and Mark Tso) on the initial report of so-called trilateral retinoblastoma, the association of primary CNS tumors with retinoblastoma. During this time, he also edited a large telephone book-sized volume on ocular and adnexal tumors. This was published by Allston Callahan's Aesculapius Press and had distinctive pink and magenta cover.

After his fellowship Fred returned to New York where he became Director of the Algernon B. Reese Ophthalmic Pathology Laboratory at Columbia/Harkness Eye Institute. Fred's clinical and research interests focused on ophthalmic oncology and the characterization of ocular and adnexal inflammations and tumors using light and transmission electron microscopy and immunohistochemistry. During his time at Columbia, Fred collaborated with hematopathologist Daniel Knowles and wrote an important series of papers on ocular adnexal lymphomas shortly after the role of B cells and T lymphocytes had been discovered.

In addition to lymphoid and inflammatory diseases of the orbit, he also intensively studied pre-malignant and malignant melanocytic disorders of conjunctiva. The ultrastructural characterization of conjunctival primary acquired melanosis and malignant melanoma was the basis for his for his monumental AOS thesis which was 153 pages long and included 89 electron micrographic figures.

In 1983, Fred became Director of Pathology at the Manhattan Eye, Ear & Throat Hospital and Professor of Ophthalmology and Pathology at Cornell Medical College/ New York Hospital. Popular with the faculty, he subsequently was appointed Academic Chief of Ophthalmology at

Manhattan Eye and Ear. Fred was the first person who was invited to be a member of both the prestigious New York and Manhattan Ophthalmological Societies.

During his tenure at Manhattan Eye and Ear, Fred established an outstanding academic curriculum comprising lectures covering all aspects of ophthalmology. These lectures were held at the Eye and Ear and were attended by residents from most of the 22 ophthalmology residency programs in the New York metropolitan area, as well as interested clinicians. The curriculum included a series of Wednesday evening lectures given by noted eye pathologists from other institutions around the country.

In 1989, Fred returned to Boston where he was appointed Chairman of the Department of Ophthalmology and the Henry Willard Williams Professor of Ophthalmology and Professor of Pathology at Harvard, serving until July 2002. An astute and savvy politician, he skillfully resolved a major conflict between a group of powerful private ophthalmologists on the Infirmary's part-time staff and the full-time staff. Reinvigorating the faculty, he markedly increased the size and importance of the full-time staff and increased the number of women. He also increased the department's commitment to basic research, building and renovating research laboratories. In the latter regard, he was instrumental in establishing an affiliation between Harvard and the Schepens Eye Research Institute that creating the world's largest and most robust basic and clinical ophthalmology research enterprise.

In 2002, Fred became seriously ill and took an extended medical leave of absence that lasted until 2007. He suffered from intermittent episodes of severe GI bleeding and literally required hundreds of blood transfusions. (He once fainted from severe anemia during a lecture at the AFIP.) After a lengthy workup, he was found to have Heyde's syndrome, a rare multisystemic disorder characterized by the triad of aortic stenosis, gastrointestinal bleeding secondary to submucosal angiodysplasia and acquired von Willebrand syndrome (AVWS). He underwent cardiac surgery for aortic stenosis in the United Kingdom. The surgery was performed without a bypass because he was at high surgical risk due to concurrent pulmonary hypertension. Later, he developed renal failure and required renal dialysis.

Fred returned to the Eye and Ear Infirmary in 2007 and became Director of the Cogan Laboratory of Ophthalmic Pathology. Following his return, he had "a rebirth of his passion for pathology" and became remarkably active academically, publishing nearly 250 papers. A colleague has suggested that he "was obsessed in the past year with writing papers in his final year, as if this was part of his enduring legacy." In recent years, he often telephoned colleagues and collaborators to discuss research topics and ask questions and continued to write until his death.

A true scholar, Fred was a prolific writer who authored more than 100 chapters and nearly 500 articles on ocular pathologic topics in refereed journals. He also wrote or edited a number of books including Albert and Jacobiec's encyclopedic six volume Principles and Practice of Ophthalmology, that had 440 contributors and was 6000 page long.

Fred's command of written and spoken English was superb and he had an impressive vocabulary (readers of his excellent papers often had to consult their dictionaries). Although he was a skilled electron microscopist, Fred was somewhat "computer illiterate". He did not own a personal computer and would dictate his papers or write in longhand during dialysis sessions. I always was happy when I was asked to review one of Fred's manuscripts. This usually was an easy task since they always were well written, scientifically valid, beautifully illustrated, and suitable for publication without revision.

A superb lecturer, Fred kept his audience awake, entertained, and informed with his erudition, insight, and occasional injections of spicy humor. Unfortunately, the latter aspect of his talks was somewhat diminished in recent years by political correctness. Fred was able to make potentially soporific topics like orbital inflammatory disease interesting. Once, he actually gave a talk on the seemingly improbable topic of corneal tumors. In recent years there is a tendency for many residents to shun the front rows and sit in the back of the auditorium. When he was Pathology Visiting Professor at the Wills Eye Hospital, Fred circumvented this by giving his lecture from the back of the auditorium!!

Liberal minded by nature, Fred was opinionated about certain issues and individuals, but only expressed his opinions in private. He did not suffer fools lightly. On the other hand, he was an excellent judge of character, talent and potential and helped to foster and promote academic careers with positive recommendations, including some that were unsolicited.

Dedicated to his academic career and ocular pathology, Fred never married and did not own a house or car. During part of his tenure at Massachusetts Eye and Ear, he lived in an apartment in the Jeffers nursing residence near the

infirmary. He did not cook and ate at restaurants. Legal Seafoods in downtown Boston was one of his favorite venues for dinner. Since he did not have many of expenses associated with families and home ownership and invested wisely, Fred was able to accumulate a considerable fortune. He donated $5.5 million to Massachusetts Eye and Ear, the largest donation from a faculty member or alumnus in the history of the department. His legacy established endowments for a Frederick and Thaddeus Jacobiec chair in ophthalmology, a Frederick Jakobiec Directorship of the Cogan Ophthalmic Pathology Laboratory, a Frederick A. Jakobiec Visiting Professorship, Lectureship, and Medal in Ophthalmic Diseases and a Resident and Fellow Education and Research Endowment. He also made an additional bequest of $1 million to support library renovations and establish a Frederick A. Jakobiec Education and Information Center to house the Lucien Howe Library of Ophthalmology. In June 2019, a banquet celebrating Fred and his generous bequest was held at the Four Seasons Hotel in Boston. I was privileged to attend the banquet with a number of other AOS members from Philadelphia. The program included talks by important mentees and colleagues and autobiographical reminiscences by Dr. Jakobiec. This outstanding event was a great tribute to a great man.

Written By,

RALPH C. EAGLE, JR., MD
Philadelphia, PA

ARTHUR JAMPOLSKY, MD

Arthur Jampolsky, MD, passed away peacefully in his sleep on March 19, 2021, one month short of his 102nd birthday. Art was born on April 24, 1919, in Bismarck, ND, and was raised in Long Beach, CA. He earned his optometry degree from the University of California in Berkeley, working his way through school as a waiter and a longshoreman. He immediately entered Stanford University School of Medicine and earned his MD in 1943. He served in the US Army Medical Corps, stationed in the Philippines during World War II and, after the armistice, in the headquarters of General Douglas MacArthur.

After completing his residency at Stanford University in San Francisco, Art arranged a rotating fellowship and, during the next year, spent time in England; France; Switzerland; Washington, DC; Boston; New York City; and Chicago. During this circuit, he met another ophthalmologist, Phil Knapp, who was doing the same thing, and they became fast friends. He returned to Stanford and began his practice with Drs. Hans Barkan and Jerome Bettman. Art again traveled abroad, this time to study electrophysiology at the Karolinska Institute in Stockholm. On his return to Stanford, he did research in electrophysiology and in sensory aspects of strabismus. When the Stanford School of Medicine moved to Palo Alto, Art and others remained in San Francisco to form what is now the California Pacific Medical Center.

In 1963, Art founded the Smith-Kettlewell Eye Research Institute (SKERI), which has attracted outstanding scientists from around the world and has fostered the collaboration of clinical and laboratory scientists. SKERI researchers have made many contributions to our

understanding of eye movement physiology; strabismus, amblyopia, and visual pathway physiology; vision rehabilitation; vision of aging; and traumatic brain injury.

In 1966, at a meeting in Giessen, Germany, Art and Drs. Curt Cuppers, Frank Costenbader, and Marshall Parks discussed the formation of an international strabismus association, and this evolved into the International Strabismological Association. Several Costenbader Society members began to discuss forming a national organization, and Art became a key part of those discussions. The American Association for Pediatric Ophthalmology was legally formed in 1974 and held its first meeting in 1975. At the 1976 meeting of AAPO, Art proposed that the name be changed to AAPOS to emphasize the importance of strabismus. Marshall Parks later wrote, "This vitally important motion virtually passed without discussion. Probably this was the most significant motion ever passed by our organization because it thwarted the possibility of creating another competing organization of strabismologists." In 1977, a change in bylaws gave the organization its new name.

Art was a brilliant clinical observer, and he made important contributions to our diagnostic and treatment methods in restrictive strabismus, A and V patterns and oblique dysfunction, Duane syndrome, superior rectus contracture syndrome, and many other areas. He popularized adjustable sutures and pre- and intra-operative evaluation of muscle forces in strabismus surgery. He received numerous prestigious awards, including the Howe Medal in 2004.

In 1957, Art married the classy Margaret (Peggy) Crew Degnan, a Pan Am stewardess. Peggy passed away in 2015. Art and Peggy are survived by two sons and a daughter, two daughters-in-law, and five grandchildren.

Art was an avid swimmer, fisherman, and skier. In recent years, he continued to swim laps daily. He was well-read. In conversation with him, often on nonmedical topics, you could always learn something, but Art was attentive and curious, and he expected to learn something as well.

Art trained 183 clinical fellows from around the world. He encouraged debate from his fellows, and he expected them to be able to argue all sides of a topic. He listened to his students, and this often led to further discussion and sometimes changes in clinical approach. It was a lively fellowship. In 1978, former fellows and their families began meeting at an annual reunion with Peggy and Art in locations around the world, and this became one of the most anticipated meetings of the year for a close family. In the past few years, as physical ailments appeared, Art could still debate with the best.

If we are lucky, we meet a few people who truly change the course of our lives. It was my good fortune to cross paths with Art Jampolsky. Art, thank you for allowing me the opportunity to do work I truly enjoy, thank you for challenging me, and thank you for a long, wonderful friendship. It was great fun! You will be missed, my friend.

Written By,

BRADLEY C. BLACK, MD
Baton Rouge, LA

MARILYN T. MILLER, MD

It is with a heavy heart that we share the news that Dr. Marilyn T. Miller, Professor of Ophthalmology and Visual Sciences, passed away on Tuesday, September 28, 2021.

Dr. Miller was a dear friend, an incredible mentor, and a trailblazer in ophthalmology who made an impact on all of us. Marilyn had a profound influence on so many lives, in regions with the most vulnerable populations.

Dr. Miller obtained her medical degree and clinical training in ophthalmology at the University of Illinois College of Medicine-Chicago (UIC) and has been on the Illinois Eye and Ear Infirmary (IEEI) faculty since 1965. She received her BA from Purdue University, Indiana; and an MS in Microbiology and MD from the University of Illinois College of Medicine-Chicago. She was a resident at the Illinois Eye and Ear Infirmary at UIC and pursued a clinical fellowship in strabismus at the IEEI and Cook County Hospitals, with Martin J. Urist, MD and Eugene R. Folk, MD serving as her preceptors. During her tenure as Professor of Ophthalmology and Visual Sciences at UIC, Dr. Miller trained and mentored hundreds of trainees, was widely respected among her peers, and was honored with countless accolades. Dr. Miller had visiting professor status at several regional, national, and international medical schools and hospitals. Included among these institutions are Loyola University Medical School and Cook County Hospital, Illinois; Georgetown University and Howard University, Washington, DC; The Hospital for Sick Children, Toronto, CA; Aravind Hospital, India; Smith-Kettlewell Eye Research Institute, San Francisco CA; and the New York Eye and Ear Infirmary. In addition, she had been invited to lecture at institutions from Abak, Nigeria to Madurai, India. In 2010 alone, Dr. Miller had been invited to lecture to pediatricians and ophthalmologists in China, India, Nigeria, Germany, Canada, and Mexico.

Former Director of the Pediatric Ophthalmology and Strabismus Section at the University of Illinois at Chicago (UIC) for 18 years, Dr. Miller also held joint appointments at UIC in the Center for Craniofacial Anomalies and the Center for Handicapped Children. Her research interests were in the areas of teratology, congenital ocular anomalies, unusual strabismus syndromes, thalidomide embryopathy, and the epidemiology of selected pediatric ophthalmology problems. Dr. Miller collaborated with and published many papers on the thalidomide crises with her colleague, Kerstin Strömland, MD, PhD; as well as with Liana Ventura, MD, on the recent Zika Virus outbreak in Brazil. In 2015, her studies took her to South America, where she studied the ocular effects of misoprostol, a teratogenic drug that if taken in a certain period during pregnancy may cause limb defects or Moebius syndrome.

It was her work in pediatric ophthalmology in developing countries such as India and Nigeria that she often talked about as her greatest legacy. Dr. Miller touched the lives of generations of eye health providers and patients around the world. For over 25 years, Dr. Miller visited rural Nigeria with FOCUS, Inc. Originally their visits involved clinical care, then expanded into teaching and lecturing. Dr. Miller had been on the organizing committee for many international congresses for pediatric ophthalmology. She had been an educator at national and international medical schools and hospitals, and served on numerous boards and advisory committees. Dr. Miller also led many of the international programs for the AAO: Chairing one of the first international committees, the Committee on International Ophthalmology. In addition, she served for many years as one of the AAO's representatives to the International Agency for the Prevention of Blindness (IAPB).

The contributions Dr. Miller made to our profession are beyond measure. She had been recognized for her many

contributions to international service. In 2019, Dr. Miller received the Laureate Award from the American Academy of Ophthalmology in recognition of her exceptional contributions for the betterment of eye care, leading to the prevention of blindness and restoration of sight worldwide. She received the Humanitarian Award from the American Academy of Ophthalmology (AAO), and the Howe Medal by the American Ophthalmological Society (AOS). The Howe Medal denotes distinguished service to ophthalmology and has had 75 recipients since first awarded in 1922. Dr. Miller was only the third woman to receive this honor.

Dr. Marilyn T. Miller changed the lives of so many people as a clinician, scientist, mentor, and friend. Her presence will be sorely missed, but her legacy will have a lasting impact on all of us.

Please join us in extending condolences to Marilyn's husband, Dr. Ronald Fishman, and their family.

Written By,

R.V. PAUL CHAN, MD
Chicago, IL

STANLEY MARSHALL TRUHLSEN, MD

Dr. Stanley Marshall Truhlsen was a quiet and highly competent leader, an outstanding historian, and an extremely generous philanthropist. He died Thursday, December 23, 2021, at the age of 101.

He was born in Herman, Nebraska, population 265, on November 13, 1920, to Lola and Henry "Spike" Truhlsen. His paternal grandfather, Niels Truedsson, had emigrated from Scania, Sweden and came to the United States via Germany in the 1870's, with his surname angelized as Truhlsen. Stan exhibited a bright mind and enjoyed working in his father's hardware store. He frequently said that he was encouraged to help his hometown and give back to make it better. His adult life was focused on doing just that.

Stan graduated from the University of Nebraska, Lincoln in 1941 and received his MD on the WW2 accelerated medical school plan from the University of Nebraska College of Medicine in 1944. He had a two-year internship and residency in pathology in Albany NY, entering the Army in 1946. His ophthalmology residency was at Washington University/ Barnes Hospital in St. Louis, Missouri from 1948 to 1951. Declining a Heed fellowship due to financial concerns, he returned to Omaha, entering private practice with Howard Morrison and his father-in-law, William P. Haney.

His charitable gifts are abundantly obvious throughout the Omaha community, at the Durham Western Heritage Museum, the Joslyn Art Museum, the Henry Doorly Zoo, Lauritzen Gardens, the VA Hospital and particularly, the University of Nebraska Medical Center campus where he provided a key donation to fund the Truhlsen Eye Institute and the Eye Research Laboratories, a classic example of his career altruism and commitment to ophthalmology.

Stan was recognized frequently. At the University of Nebraska, he held many positions. A member of the medical school faculty since 1951, he served as interim department chair from 1989 to 1990, also serving as a Trustee and was one of the earliest recipients of the school's Distinguished Service to Medicine award. Additionally, he provided funding for the Durham

Museum's lecture hall renovations and an addition to the Countryside Community Church, the Holland Performing Arts Center, the Salvation Army Kroc Center and the Joslyn Art Museum's sculpture garden.

In American ophthalmology, he holds the astounding 72-year record of continuous annual meeting attendance, from 1949 to 2021. He served as associate editor and then editor of the AAO journal "Transactions", the predecessor of the journal "Ophthalmology". In 1983 he was the president of the AAO, becoming chair of the foundation board in 1984 and became the 100th president of the American Ophthalmological Society in 1996, receiving the Lucien Howe medal in 2001.

Always interested in history, he donated both documents and funds to create the American Academy of Ophthalmology's Truhlsen-Marmor Museum of the Eye, in San Francisco, which offers the only free museum dedicated to vision and eye care. He chaired the Oral History Program Committee from 1987 to 1988 and served as Vice Chair of the Ophthalmic Heritage Foundation board from 1991 to 1997. He also chaired the museum Academy Archives Committee from 1991 to 2010.

Other organizations for which Dr. Truhlsen has served as president include the American Eye Study Club, the Nebraska Academy of Ophthalmology, the Omaha Medical Society, the medical staffs of two hospitals, Clarkson and Emanuel, the Exchange club of Omaha, as well as the Rotary of Omaha. He has been on the board of the Nebraska Medical Association, and president of the Nebraska chapter of Alpha Omega Alpha, national medical honorary society. Clarkson Hospital honored him in 1985 with its Outstanding Physician Award and the Nebraska affiliate of the National Society to Prevent Blindness gave him its People of Vision award. While he was a governor of the American College of Surgeons in 1985, the non-profit Nebraska Aksarben Foundation honored him as the state's outstanding philanthropist. The University College medical alumni gave Stanley Truhlsen its first distinguished Alumnus Achievement Award in 1989 and that year, he also received the Omaha Elk Citizen of the Year Award from the combined the elk agencies drive.

I met Stan Truhlsen as a resident at the University of Iowa in 1962, and over time, he became a close friend. Stan was an enthusiastic golfer, and having played many rounds with him, I can attest to his competitive nature. He was always willing to bet on our golf matches and it was usually a good decision on his part. We always bet on the Iowa/Nebraska football game, generally the last game of the season, prior to the bowl games. I'm embarrassed to say that just before his death, at the end of November 2021, I won our final bet in the amount of $1 which Stan could easily afford. It should be noted that Stan was one of the leading contributors to the University of Nebraska and its medical school. He was aided in that, by being one of Warren Buffet's original 11 investors. Stan and Warren had a very positive relationship.

His family was close, loyal and loving. After the death of his first wife, he was introduced to a woman living in Denison, Iowa, Dorothy Johnson. They married as he was becoming the Vice President of the AAO in 1982. Known as "Dottie", her golfing prowess was well known as she held the AOS woman's golf championship for a number of years.

Stan was preceded in death by his first wife, Ruth Haney Truhlsen, son Stanley M. Truhlsen, Jr., his second wife, Dorothy Johnson, and sister, Marion Holmes. He is survived by sister Jodie Johns; son William Truhlsen (Joan); daughters Nancy Brager (John), and Barbara Mitchell (Peter); grandchildren, Yancy Brager Baker, Allison Brager Keller, Erin Brager Zanotti, Jennifer Mitchell, John Brager, step grandson Matt Winingham and thirteen great grandchildren.

Written by,

BRUCE E. SPIVEY, MD
San Francisco, CA

ROBERT B. WELCH, MD

Dr. Robert Bond Welch, renowned vitreoretinal surgeon, retinal disorder researcher, historian, educator, and friend to all, died on January 5, 2021 at home in Baltimore. He was 93. Bob became a member of the AOS in 1970 and served as its President in 1994.

Bob's passions for ophthalmology, history, education and service were cultivated in his childhood home in Annapolis, Maryland, directly across the street from the state Capitol. Medicine was a common profession in Bob's family – his father was the first EENT surgeon in Annapolis; his grandfather had been a physician; and his great-great-uncle, Thomas Bond, in Bob's words "went to Philadelphia and started the first hospital with Ben Franklin – the Pennsylvania Hospital". At age 14, Bob announced his intention to become a physician.

His undergraduate studies were interrupted by military service as a hospital corpsman in the Navy, but he graduated from Princeton in 1949 and from Johns Hopkins University School of Medicine in 1953. He then served an internship at Duke University with intentions of Internal Medicine as a specialty. Troubled by the poor outcomes of most patients on an Internal Medicine service, Bob decided to "give Ophthalmology a try". He wrote to Alan Woods, MD, then Director of the Wilmer Ophthalmological Institute, to ask for a position as a resident, was accepted, and began residency at Wilmer in 1954. He subsequently served as Chief Resident at Baylor and as a retina fellow at the Massachusetts Eye and Ear Infirmary. AOS member Ed Maumenee, who had succeeded Dr. Woods as Chairman at Wilmer, selected Bob as Chief Resident, and it was this position that lured him back to Maryland, where he would spend his life.

Dr. Welch had a career in ophthalmology that would be almost unheard of in this day – a busy private practice in both Annapolis and Baltimore as well as reaching the heights of academic medicine. While teaching residents and fellows at Wilmer for several decades, he held the position of co-Director of the retina service at Wilmer from 1959-1985. He also continued to serve the US military as retinal consultant to the U.S. Public Health Service Hospital, Bethesda Naval Hospital and Walter Reed Army Medical Center. Dr. Welch's residents and fellows fondly recall their trips to DC, in which their duties including chauffeuring Bob but also gaining great insights from him, both academically and socially. Regarding his service to the military hospitals, Bob recalled, "it was a rewarding time for me, both for teaching promising residents, and for opportunities to meet many memorable people: First Lady Barbara Bush, Senator Bob Dole, and other distinguished individuals from around the world, such as the Prime Minister of Jamaica."

In 1985, after the premature death of AOS member Richard E. "Dick" Hoover, who was the founding Chair of the Greater Baltimore Medical Center (GBMC) Department of Ophthalmology, Dr. Welch became the Department's second Chairman. He held this position at GBMC from 1985-1991 and was succeeded by another AOS Past-President, Pat Wilkinson, who had also been his resident. Pat recalled "in addition to his humble nature, his patience in training residents should be acknowledged- I well recall trying to find a far peripheral retinal lesion with the old Xenon photocoagulator, and he let me sweat at it for what seemed like hours. . . . "

In recognition of his service, teaching and research, each of these institutions honored Dr. Welch with lasting tributes: in 2006, Wilmer established the Robert Bond Welch, MD, Professorship in Ophthalmology. The Chair was intended to support the work of a Wilmer

faculty member in care, teaching and clinical research of retinal disease; its inaugural recipient was AOS Council member, Julia Haller, who was a lifelong friend of Bob and considered him to be her primary mentor. Dr. Welch received the Superior Civilian Service Award from the Department of the Army in recognition of his service to the military in training a generation of military ophthalmologists. Bob's affiliation with GBMC dated back to 1959 when he began his service on the Board of the Presbyterian Eye Research Foundation, and he served on the Board of the Presbyterian, Eye, Ear, Nose and Throat Charity Hospital, the hospital that became GBMC, until his death. The Wilkinson-Welch-Hoover Chair in Ophthalmology at GBMC was named in honor of the Department's three Chairs and supports the work of the Department at GBMC.

Commentary about the life and profession of Dr. Welch would not be complete without mention of his beloved wife, Betty. Bob and Betty met during a sailing regatta on Maryland's Eastern Shore; they both finished near last place, but Bob was fond of stating that he was the "real winner" that day. They married in 1953, and their personal and professional lives became completely intertwined. Mrs. Welch assisted Dr. Welch in his Annapolis private practice for more than 25 years. They hosted the former Wilmer residents annually during the Wilmer meeting, and she proofread Dr. Welch's history of the Wilmer Institute as he was writing it. Dr. Welch was an active participant in the oral examination process for the American Board of Ophthalmology, and in the early days, Mrs. Welch warmly welcomed the candidates and assisted in registration and directing them to the examinations. She was his co-pilot in the "big Cadillac" that Bob loved, and they preferred to drive rather than fly to the various meetings, eventually tallying seven cross-country trips.

Dr. Welch had a prodigious memory which made him the consummate historian, and he loved to share historical accounts, especially those involving ophthalmology in Baltimore. This led several to remark that "Bob knew more about me than I remember about myself . . ." He shared his love of history, of our profession of Ophthalmology and his friendship, freely and generously. To say, "he will be missed" doesn't capture the emotions of the loss of this truly great man and loyal AOS member.

Written By,

MARY LOUISE Z. COLLINS, MD
Baltimore, MD