

## CURRICULUM VITAE

SOPHIE XIAOHUI DENG

### PROFESSIONAL ADDRESS:

Cornea Division  
Stein Eye Institute, UCLA  
100 Stein Plaza  
Los Angeles, CA 90095  
Clinical Office: 310-206-7206  
Laboratory: 310-825-6263  
Fax: 310-794-7906  
Clinical Practice e-mail: dengpatients@jsei.ucla.edu  
E-mail: deng@jsei.ucla.edu

### EDUCATION:

- 1989-1991 *Bachelor of Science (BS) Phi Beta Kappa*, The City College of New York, City University of New York
- 1994-2001 *Doctor of Medicine (MD)*, University of Rochester, School of Medicine and Dentistry
- 1994-2001 *Doctor of Philosophy (PhD) in Immunology and Microbiology*, University of Rochester, School of Medicine and Dentistry

### Postgraduate Training

- 2001-2002 Internship, Internal medicine  
Department of Medicine, University of Tennessee at Memphis
- 2002-2005 Residency in Ophthalmology  
Department of Ophthalmology, University of Illinois, Chicago

### Fellowship Training

- 2005-2006 Heed Fellow  
Cornea, External Ocular Diseases and Refractive Surgery Fellowship Program  
Stein Eye Institute, Department of Ophthalmology, David Geffen School of Medicine at UCLA

### PROFESSION EXPERIENCE

- 2017- Professor, Stein Eye Institute, Department of Ophthalmology, David Geffen School of Medicine at UCLA
- 2013-2017 Associate Professor in residence, Stein Eye Institute, Department of Ophthalmology, David Geffen School of Medicine at UCLA
- 2013- Co-Director, Center for Regenerative Medicine in Ophthalmology

Stein Eye Institute, Department of Ophthalmology, David Geffen School of Medicine at UCLA

- 2007-2013 Assistant Professor in residence, Stein Eye Institute, Department of Ophthalmology, David Geffen School of Medicine at UCLA
- 2007-2013 Consultant, Cornea Service, VA Great Los Angeles Health Care System
- 2006-2007 Associate Physician Diplomate, Stein Eye Institute, Department of Ophthalmology, UCLA School of Medicine
- 1991-1994 Research Assistant, The Rockefeller University

## **CERTIFICATION AND LICENSURE**

Diplomate, National Board of Medical Examination, 2002  
 Diplomate, American Board of Ophthalmology, 2007, recertified 2017  
 State of California Medical License, 2005-present

## **HONORS AND AWARDS:**

- 1989 Heymann Scholarship.
- 1990 Arthur G. Levy Award.
- 1991 Seymour Mann Award.
- 1991 Francis Hochman Award.
- 1991 Marks Neidle Memorial Prize in Physical Chemistry.
- 1991 Dean's List.
- 1991 Research Honors.
- 1991 Bachelor of Science, *Magna Cum Laude*.
- 1991 *Phi Beta Kappa*
- 1994 Fannie & Henry Rice Scholarship.
- 1994 Helen Kingsbury Medical Student Scholarship.
- 1995 John A. Hartford/AFAR Medical Student Geriatric Scholar.
- 2005 Beem-Fisher Award, First Place for Best Resident Scientific Paper.  
 Chicago Ophthalmological Society.
- 2005 Excellence in Resident Research.  
 Department of Ophthalmology, University of Illinois, Chicago.
- 2005 Heed Foundation Fellowship (July 2005 to June 2006).
- 2009 Best of Show in Anterior Segment Reconstruction, "Analysis of the Corneal and Limbal Epithelial Changes in Limbal Stem Cell Deficiency"  
 The America Society of Cataract and Refractive Surgery 2009 Annual Meeting.  
 San Francisco, California
- 2010 Prevent Blindness America Investigator Award.
- 2016 2016 THz Science and Tech. Best Paper Award (co-Author)
- 2016 Achievement Award, American Academy of Ophthalmology
- 2019 Achievement Award, Asian-Pacific Academy of Ophthalmology

## **PROFESSIONAL ACTIVITIES**

### **Honor Society Memberships**

- 1989 Sigma XI Research Fellow.

1991 Phi Beta Kappa.  
2005 Heed Fellow

### **Professional Organization Memberships:**

Fellow, American Academy of Ophthalmology.  
Member with Thesis, The Cornea Society.  
Member, Association for Research in Vision and Ophthalmology.  
Member, California Academy of Ophthalmology.  
Member, Los Angeles Society of Ophthalmology.  
Member, Max Fine California Cornea Society.  
Member, Women in Ophthalmology

### **University Services:**

2008 Ophthalmology Resident Selection Committee, UCLA Department of Ophthalmology  
2007- Clinical Quality Assurance Committer, UCLA Department of Ophthalmology  
2007-2016 Jules Stein Eye Institute Noon Research Seminar Organizing Committee, UCLA Department of Ophthalmology  
2007-12 Consultant, Cornea Service, VA Great Los Angeles Health Care System  
2009- 10 Grant reviewer, Council on Research Faculty Grant Program, UCLA  
2019- Department of Ophthalmology Ad Hoc A Committee for Academic Review  
2019 Search committee member, Kirchgessner, Oppenheimer and Dabby Endowed Chair  
2019 Search committee member, Cornea and Refractive Surgery faculty position, Department of Ophthalmology.

### **Community and Professional Services**

2007-2009 Editorial Board Member, Ocular TRUST Program, Vistakon Pharmaceuticals, LLC.  
2010-2016 Ophthalmic Technology Assessment Committee, Cornea and Anterior Segment Disorders Panel, America Academy of Ophthalmology.  
2011-2018 Co-organizer, International Limbal Stem Cell Deficiency Workshop on the Definition, Diagnosis and Treatment of Limbal Stem Cell Deficiency  
2015-2017 Subcommittee member, Management & Therapy, TFOS Dry Eye Workshop II (DEWS II)  
2015-2018 Member, Annual Meeting Program Committee (Cornea Section), Association for Research in Vision and Ophthalmology  
2016- Co-organizer, Vista conference, Cornea Society  
2017 Member, Program Committee, Cornea Day at the America Society of Cataract and Refractive Surgery Annual Meeting  
2017- Representative, Cornea Society, Association of University Professors of Ophthalmology Fellowship Compliance Committee  
2018- Board of Directors, Cornea Society  
2019 Member, Program Committee, Cornea Day at the 2019 America Society of Cataract and Refractive Surgery Annual Meeting  
2019-21 Program Co-Director, Cornea Day, Annual Meeting of the American Academy of Ophthalmology  
2019- Member, Medical and Scientific Advisory Council, Aniridia Foundation International  
2020- Scientific Program Director, Cornea Society

2020 Member, Program Committee, World Cornea Congress 2020

### **Editorial Services to Scholarly Publications**

#### *Editorial Board:*

2017- Cornea  
 2018- The Ocular Surface  
 2019- PlosOne

#### *Reviewer*

2008- Reviewer, Molecular Vision  
 2009- Reviewer, Cornea  
 2010- Reviewer, Investigational Ophthalmologic Vision Sciences  
 2010- Reviewer, Survey of Ophthalmology  
 2010- Reviewer, Eye  
 2010- Reviewer, Cell Transplantation  
 2011- Reviewer, American Journal of Ophthalmology  
 2011- Reviewer, Journal of Cataract and Refractive Surgery  
 2011- Reviewer, British Journal of Ophthalmology  
 2011- Reviewer, Experimental Eye Research  
 2011- Reviewer, JAMA Ophthalmology (Archive of Ophthalmology)  
 2012- Reviewer, European Journal of Ophthalmology  
 2012- Reviewer, Ophthalmology  
 2012- Reviewer, PlosOne  
 2013- Reviewer, Stem Cells  
 2014- Reviewer, Nature Scientific Report  
 2015- Reviewer, Stem Cell Research  
 2016- Reviewer, Stem Cells Translational Medicine  
 2018- Reviewer, Stem Cells and Development

### **Clinical Trials**

2010 Principle Investigator (UCLA site), "Safety and Efficacy Study of Azithromycin Ophthalmic Solution, 1% versus Placebo in Subjects with Blepharitis", Inspire Pharmaceutical, Inc.

2012-6 Investigator, "A Randomized, Multicenter, Double-Masked Cornea Preservation Time Study", National Eye Institute.

2014-6 Principle Investigator (UCLA site), "Evaluation of Efficacy of 20 µg/ml rhNGF new formulation (with anti-oxidant) in patients with stage 2 and 3 Neurotrophic Keratitis", Dompé Corp.

2017- Investigator, "Zoster Eye Disease Study", National Eye Institute.

2017-8 Investigator, "A Phase I/II Prospective, Randomized, Multicenter, Double-Masked, Vehicle-Controlled Clinical Trial to Evaluate the Safety and Efficacy of Corneal Collagen Cross-Linking of Keratoprosthesis Carrier Tissue in High-Risk Keratoprosthesis Implantation", Department of Defense, U.S.

2019- Sponsor and Investigator, a phase I randomized controlled clinical trial, "Safety and Feasibility of cultivated autologous limbal stem cell for limbal stem cell deficiency".

## Consulting Activities

1. Baush & Lomb, ad hoc consultant
2. Santen Pharmaceutical., expert panelist on treatment of dry eyes at a roundtable discussion at AROV 2014 annual meeting
3. Hoya Corp., lunch symposium on endothelial keratoplasty at World Ophthalmology Congress 2014
4. Visionary International, Board Member 2008-
5. Fudan University, Eye, Ear and Throat Hospital, Shanghai, P.R. China
6. Chiesi Farmaceutici S.P.A. 2016 to 2017
7. W. L. Gore & Associates, Inc., 2019
8. Kowa Research Institute, Inc., 2019-present
9. Dompe US, 2019-present

## IVESTIGATIONAL NEW DRUG (IND)

Sponsor: Cultivated autologous limbal stem cell for limbal stem cell deficiency

## PATENTS

1. EP3554487A1 (additional patent pending): Xenobiotic-free culture system to expand limbal stem cells
2. Patent application US2016/0376555A1: Novel methods to regenerate limbal stem cells
3. Patent application US2028/62638045: Stem cell-derived exosomes for the treatment of corneal scarring

## RESEARCH GRANTS AND FELLOWSHIPS RECIEVED:

### Ongoing Research Support

CLIN2-11650 11/01/19-10/31/23

California Institute for Regenerative Medicine (CIRM)

Safety and Feasibility of cultivated limbal stem cells for limbal stem cell deficiency

Role: PI

Amount: \$10,301,486

R01 EY028557 09/30/18-8/31/22

NIH/NEI

Development of Small-Molecule Wnt Mimics for Corneal Epithelial Cell Regeneration

Role: PI (multi-PI)

Amount: 8% effort

EY021797 09/01/12-01/30/24

NIH/NEI

Development of stem cell-based therapies for limbal stem cell deficiency

Role: PI

Amount: \$2,500,000 (direct)

Lindstrom Research Grant (PI-Ruiz) 07/01/2019-6/30/2020

Eye bank association of America

Identifying specific Limbal Epithelial Stem Cells extracellular microRNAs for improved characterization of cellular therapy product to treat Limbal Stem Cell Deficiency

Role: co-Investigator

**Past Research Support:**

CLIN1-08686 08/01/16-12/31/19

California Institute for Regenerative Medicine (CIRM)

Regeneration of a Normal Corneal Surface by Limbal Stem Cell Therapy

Role: PI

Amount: \$4,244,211

Lindstrom Research Grant (PI-Gonzalez) 07/01/2018-6/30/2019

Eye bank association of America

Comparative Study on Different Xenobiotic-Free Culture Media for Human Limbal Epithelial Stem Cells

Role: co-Investigator

R01 EY022364 Lu (PI) 09/01/13-08/31/17

NIH/NEI

Differential Effects of Corneal Hypoxia on Limbal Stem and Epithelial Cell Fates

Role: Consultant

Amount: \$30,000

R01 1R01EY021590-01 Grundfest (PI) 07/01/11-06/31/16

NIH

Non-Contact, THz Sensing of Corneal Hydration

Role: co-Investigator

Amount: 7% effort

Unrestricted Research Grant 07/01/14-06/30/15

Research to Prevent Blindness

Role: PI

Amount: \$50,000

BF-01768 08/01/14-01/29/15

California Institute for Regenerative Medicine (CIRM)

Regeneration of Functional Human Corneal Epithelial

Progenitor Cells

Role: PI

Amount: \$455,718 (direct)

TR2-01768 03/01/11-02/28/14

California Institute for Regenerative Medicine (CIRM)

Regeneration of Functional Human Corneal Epithelial Progenitor Cells

Role: PI

Amount: \$ 1,076,861 (direct)

T32 EY007026-35 Travis (PI) 10/30/05-09/30/11

NIH/NEI

Jules Stein Eye Institute Training Grant for Vision Research

Role: Preceptor  
Amount: \$60,722

Investigator Award 07/01/10-06/30/11  
Prevent Blindness of America  
Characterization and Staging of Limbal Stem Cell Deficiency using *in vivo* Confocal Laser Scanning Microscopy  
Role: PI  
Amount: \$25,000

Faculty Research Grant 07/01/09-6/30/10  
UCLA  
Regeneration of limbal stem cells from epidermal epithelial stem cells  
Role: PI  
Amount: \$10,000

Oppenheimer Translational Research Seed Grant 07/01/08-6/30/09  
UCLA  
Isolation of human epidermal epithelial progenitor cells  
Role: PI  
Amount: \$30,000

Research Grant 07/01/05-06/30/05  
Abraham J. & Phyllis Katz Foundation  
Antimicrobial Effects of Methotrexate  
Role: PI  
Amount: \$9,000

Research Grant Goldstein (PI) 07/07/04-06/30/05  
Illinois Society for the Prevention of Blindness  
Use of Methotrexate in Ocular Inflammation  
Role: co-PI  
Amount: \$5,000

## INVITED LECTURES AND PRESENTATIONS

- May 19 2006 “Uveitis in Children: Infliximab Treatment of Chronic, Non-Infectious Anterior Uveitis”  
The 40<sup>th</sup> JSEI Annual Clinical and Research Seminar
- Sep 09 2007 “Limbal Stem Cell Deficiency, Approach an Old Problem at a New Angle”  
JSEI Vision Conference  
Lake Arrowhead, California
- Nov 30 2007 “Intravitreal Methotrexate as a Local Therapy for Uveitis”  
First Chinese Conference on Uveitis  
Guangzhou, Guangdong, China
- Nov 30 2007 “Boston Type I Keratoprosthesis, Patient Selection and Post-Operative Management”  
Zhongshan Ophthalmic Center

Guangdong, China

- May 23 2008 “Red Eye and Collagen Vascular Diseases”  
Rheumatology Division Grand Rounds, Department of Medicine,  
UCLA David Geffen School of Medicine
- Feb 3 2009 “Ex Vivo Expansion of Limbal Stem Cells”  
The Brasel Basic Science Conference  
Los Angeles Biomedical Research Institute at UCLA-Harbor Medical Center
- May 3 2009 “Analysis of the Corneal and Limbal Epithelial Changes in Limbal Stem Cell  
Deficiency Using *in vivo* Confocal Microscopy.”  
18<sup>th</sup> Vista Scientific Conference  
Fort Lauderdale, Florida
- Jun 11 2009 “Activation of Wnt/ $\beta$ -catenin Promotes Self-Renewal of Human Limbal Stem  
Cells.”  
Gordon Research Conferences on Tissue Repair and Regeneration  
New London, New Hampshire.
- Apr 8 2010 “Analysis of Cellular Abnormalities in Limbal Stem Cell Deficiency by *in vivo*  
Confocal Microscopy”  
World Cornea Congress VI  
Boston, Massachusetts
- May 4 2010 “Evaluation of Structural Changes in Limbal Stem Cell Deficiency Using *in vivo*  
Confocal Microscopy.”  
The Association for Research in Vision and Ophthalmology (ARVO) 2010 annual  
meeting  
Fort Lauderdale, Florida
- Sep 17 2010 “Descemet Stripping Automated Endothelial Keratoplasty in Endothelial  
Dysfunction.”  
The 25<sup>th</sup> Asian Pacific Academy of Ophthalmology Congress  
Beijing, China.
- Oct 22 2010 “Corneal Epithelial Stem Cells, In Sickness and In Health”  
Embryology Club  
UCLA Department of Biological Sciences
- Dec 3 2010 “DSEK in Glaucoma Patients”  
The 2<sup>nd</sup> Asian Cornea Society Biennial Scientific Meeting  
Kyoto, Japan.
- Mar 18 2011 “Scleritis, Diagnosis and Management.”  
Rheumatology Grand Rounds  
Department of Medicine, UCLA
- May 3 2011 “Comparative Analysis of Biological Processes and Molecular Functions in the  
Human Ocular Epithelium: Preferential Gene Expression in the Human Limbus”  
(senior author).  
ARVO 2011 Annual Meeting  
Fort Lauderdale, Florida



- May 4 2011 “Wnt/ $\beta$ -catenin Signaling Regulates Proliferation of Human Cornea Epithelial Stem/Progenitor Cells.”  
ARVO 2011 Annual Meeting  
Fort Lauderdale, Florida
- Dec 15 2011 “Anterior Segment Reconstruction”  
Grand Round, Department of Ophthalmology, Yale University  
New Haven, Connecticut
- Jan 29 2012 “Ocular Surface Reconstruction”  
Jules Stein Eye Institute-Southern California College of Optometry 2012 Symposium  
Los Angeles, California
- Mar 26 2012 “Wnt Signaling in Limbal Stem/Progenitor Cells”  
Gordon Research Conferences on Biology and Pathobiology of the Cornea  
Ventura, California
- Apr 13 2012 “Elevated Intraocular Pressure is a Common Complication in Active Infectious Keratitis”  
The 27<sup>th</sup> Asian Pacific Academy of Ophthalmology Congress  
Busan, South Korea
- Apr 14 2012 “New Approaches to Detect Limbal Stem Cell Deficiency”  
The 27<sup>th</sup> Asian Pacific Academy of Ophthalmology Congress  
Busan, South Korea
- May 7 2012 “The Role of Wnt6 in Regulating Human Corneal Epithelial Stem/Progenitor Cell Differentiation” (Senior Author)  
ARVO 2012 Annual Meeting  
Fort Lauderdale, Florida
- May 9 2012 “Wnt Signaling Pathway Regulates the Differentiation of Human Corneal Epithelial Stem/Progenitor Cells via the Frizzled 7 Receptor” (Senior Author)  
ARVO 2012 Annual Meeting.  
Fort Lauderdale, Florida
- May 9 2012 “Wnt Signaling in the Regulation of Corneal Epithelial Stem/Progenitor Cells”  
Special Interest Group Section (SIG)  
ARVO 2012 Annual Meeting.  
Fort Lauderdale, Florida
- Apr 19 2012 “Bioengineering of Limbal Stem Cell for Transplantation”  
Shanghai Stem Cell Initiative, Tonji University  
Shanghai, China
- Oct 5 2012 “Anterior Segment Reconstruction”  
Grand Rounds, Department of Ophthalmology  
Northwestern University, Chicago, Illinois
- Nov 27 2012 “Use and Misuse of AMT in Keratoplasty”  
3<sup>rd</sup> Biennial Asian Corneal Society Meeting  
Manila, Philippine
- Dec 12 2012 “Anterior Segment Reconstruction”

- Grand Rounds, Department of Ophthalmology  
University of California, Irvin
- Apr 4 2013 “Wnt Signaling in the Regulation of Human Corneal Epithelial Stem Cells”  
117<sup>th</sup> Annual Meeting of the Japanese Ophthalmological Society  
Tokyo, Japan
- May 11 2013 “Management of Failed PK: repeat PK vs. DSEK vs. keratoprosthesis”  
Advances in Cornea Surgery: Decisions and Dilemmas in a Changing Field  
Tissue Bank international Cornea Symposium  
Santa Monica, California
- Sep 12 2013 “TRUST”  
The XIX International Congress of Cornea and Refractive Surgery  
Puerto Vallarta, Mexico
- Sep 12 2013 “Limbal Stem Cell Deficiency”  
The XIX International Congress of Cornea and Refractive Surgery  
Puerto Vallarta, Mexico
- Sep 18 2013 “Use and Misuse of AMT in Ophthalmology”  
Keynote Lecture  
The 7th International Conference on the Tear Film & Ocular Surface (TFOS)  
Taormina, Sicily
- Oct 11 2013 “Limbal Stem Cell Deficiency: the Past, the Present and the Future”  
UCI Stem Cell Center Fall Lecture Series  
University of California, Irvine  
Irvine, California
- Nov 13 2013 “Engineering replacement cornea from autologous stem cells”  
Tissue Engineering International & Regenerative Medicine Society (TERMIS) 2013  
America Meeting  
Atlanta, Georgia
- Dec 5 2013 “New Advances in the Treatment and Diagnosis of Limbal Stem Cell Deficiency”  
Cedars-Sinai Regenerative Medicine Institute Seminar Series  
Los Angeles, California
- Feb 19 2014 “Bioengineering of Human Limbal Stem/Progenitor Cells”  
Gordon Research Conference in Biology and Pathology of the Cornea  
Ventura, California
- Apr 4 2014 “DMEK - Cutting Edge & Future Possibilities”  
Lunch symposium, 2014 World Ophthalmology Congress  
Tokyo, Japan
- Apr 7 2014 “Recent Advances in Limbal Stem Cell Deficiency”  
Grand Rounds Department of Ophthalmology, Osaka University,  
Osaka, Japan
- Apr 25 2014 “Penetrating Keratoplasty”  
Session III: Video Pearls in Keratoplasty Surgery: You NEED to SEE This  
Cornea Day, ASCRS 2014

Boston, MA

- May 7 2014 “The Effect of Wnt Signaling Small Molecule Modulators on the Cultured Human LSCs”  
Application of Molecular Biology to Corneal Regenerative Medicine  
2014 ARVO annual meeting  
Orlando, FL
- Jul 20 2014 “Novel Approaches to Expand Limbal Stem Cells”  
XXI Biennial Meeting, International Society for Eye Research  
San Francisco, CA
- Sep 19 2014 “DMEK – Now and Beyond”  
The 17<sup>th</sup> AFRO-Asian Congress of Ophthalmology/17<sup>th</sup> CCOS  
Xi’an, P.R. China
- Sep 19 2014 “New Advances in the Diagnosis of Limbal Stem Cell Deficiency”  
The 17<sup>th</sup> AFRO-Asian Congress of Ophthalmology/17<sup>th</sup> CCOS  
Xi’an, P.R. China
- Apr 3, 2015 “New Parameters to Classify Limbal Stem Cell Deficiency”  
The 17<sup>th</sup> Chinese Ophthalmology Congress  
GuangZhou, China
- Jun 19, 2015 “What We Don’t Know about Limbal Stem cell Deficiency”  
Bench to Bed Research Symposium  
Gavin Herbert Eye Institute, University of California, Irvine  
Irvine, CA
- Aug 13, 2015 “New Approaches to Bioengineer Limbal Stem Cell for Transplantation”  
The Aniridia Foundation International “Make a Miracle” conference  
Vancouver, BC, Canada
- Aug 14, 2015 “Treatment Options for Aniridia Keratopathy”  
The Aniridia Foundation International “Make a Miracle” conference  
Vancouver, BC, Canada
- Oct 16 2015 “Regulation of Human Limbal Stem Cells via Wnt Signaling Pathway”  
The 29<sup>th</sup> Boston Biennial Cornea Conference  
Boston, MA
- Mar 6 2016 “Outcome of DMEK in Patients with Prior Glaucoma Surgery”  
6<sup>th</sup> Fuchs Symposium  
Baltimore, MD
- May 2 2016 “Limbal Stem Cell Therapy: Myth or Truth”  
Minisymposium, ARVO 2016 annual meeting  
Seattle, WA
- May 6 2016 “Complications of Cosmetic Eye-whitening Procedures”  
Cornea Day, ASCRS 2016  
New Orleans, LA
- Jun 18 2016 “Standardized Surgical Techniques to Perform Successful DMEK”

- Tianjin International Ophthalmology Forum 2016  
Tianjin, P.R. China
- Sep 9 2016 “Limbal Stem Cell Deficiency: Where We Are Now”  
Keynote Lecture  
The 8th International Conference on the Tear Film & Ocular Surface (TFOS)  
Montpellier, France
- Sep 9 2016 “Standardization of limbal stem cell culture for transplantation”  
2016 EuroCornea  
Copenhagen, Denmark
- Sep 26 2016 “New Insight into the Diagnosis of Limbal Stem Cell Deficiency”  
XXI Biennial Meeting, International Society for Eye Research  
Tokyo, Japan
- Oct 15 2016 “How Do I Know If This is Stem Cell Deficiency?”  
Cornea Day, 2016 AAO annual meeting  
Chicago, IL
- Mar 2 2017 “How to Diagnose Limbal Stem Cell Deficiency”  
2017 Asian Pacific Association of Ophthalmology  
Singapore
- Mar 3 2017 “Limbal Stem Cell Therapy”  
2017 Asian Pacific Association of Ophthalmology  
Singapore
- May 18 2017 “New Insights into Imaging the Human Cornea”  
Congress of the Chinese Cornea Society  
Shanghai, P. R. China
- May 25 2017 “Limbal Stem Cells, in Sickness and in Health”  
Visiting Professor Lecture, Massachusetts Eye and Ear Infirmary  
Boston, MA
- Jun 9 2017 “Advances in the Diagnosis and Treatment of Limbal Stem Cell Deficiency”  
Stein Eye Institute 50<sup>th</sup> Celebration  
Los Angeles, CA
- Aug 11 2017 “Pitfalls and Pearls from the First 10 years of Practice”  
2017 Summer Symposium, Women in Ophthalmology  
San Diego, CA
- Nov 8 2017 “Ocular Surface Squamous Neoplasia: INF  $\alpha$ 2b or Mitomycin C”  
2018 Asian Pacific Association of Ophthalmology  
Hong Kong
- Feb 22 2018 “Regulation of Limbal Stem Cells”  
2018 Gordon Conference on Cornea and Ocular Surface Biology and Pathology  
Ventura, CA
- Mar 24, 2018 “Pearls for Successful DMEK”  
The 2018 International Congress of Ophthalmology and Optometry China  
Shanghai, China

- May 1 2018 “In vivo Imaging in the Assessment of Limbal Stem Cell Function”  
Minisymposium, 2018 ARVO Annual Meeting  
Honolulu, HI
- Jun 16 2018 “DMEK in Glaucoma Patients: Surgical Techniques and Clinical Outcomes”  
Invited Symposium, 2018 World Ophthalmology Congress  
Barcelona, Spain
- Jun 18 2018 “Peripheral Corneal Diseases”  
Breakfast club, 2018 World Ophthalmology Congress  
Barcelona, Spain
- Jul 25 2018 “Update on Limbal Stem Cell Deficiency Transplantation”  
II PanCornea International Congress  
Cartagena, Columbia
- Jul 25 2018 “Back to the Future: Understanding and Controlling Recurrent HSV Keratitis”  
II PanCornea International Congress  
Cartagena, Columbia
- Jul 25 2018 “DSAEK and DMEK to Treat Endotheliopathy”  
II PanCornea International Congress  
Cartagena, Columbia
- Oct 28 2018 “Case: Not Your Standard Dry Eyes”  
Cornea Day, 2018 AAO annual meeting  
Chicago, IL
- Dec 8 2018 “Current Status on Limbal Stem Cell Deficiency”  
2018 Corneal Forum  
Third Hospital, Peking University  
Beijing, China
- Mar 7 2109 “KPRO vs Limbal Stem Cell Therapy: Which one and when”  
2019 Asian Pacific Association of Ophthalmology  
Bangkok, Thailand
- Mar 8 2019 “Nerve Growth Factor in Neurotrophic Keratitis”  
2019 Asian Pacific Association of Ophthalmology  
Bangkok, Thailand
- Mar 22 2019 “In vivo Imaging in the Diagnosis of Limbal Stem Cell Deficiency”  
COOC 2019  
Shanghai, China
- May 1 2019 “The role of clinician-scientists in vision research”  
Clinician-scientist Workshop  
2018 ARVO annual meeting  
Vancouver, Canada
- Jun 13 2019 “Diagnostic testing for LCSD: is it necessary?”  
European Society of Ophthalmology 2019 Annual Meeting  
Nice, France

- Sep 24 2019 “Current Status on the diagnosis and treatment of limbal stem cells”  
Colleen Conway Grace, MD Lectureship  
Department of Ophthalmology, University of Maryland
- Sep 26 2019 “Different Causes of Cornea Decompensation”  
Sektion Kornea Symposium, 2019 Annual meeting of German Ophthalmological Society  
Berlin, Germany
- Oct 11 2019 “Global Consensus on definition, classification, diagnosis, and staging of limbal stem cell deficiency”  
Mini-symposium “Future of Eye Banking and Corneal Transplantation”  
2019 Cornea and Eye Banking Forum  
San Francisco, CA
- Oct 13 2019 “Noninvasive Diagnosis of Limbal Stem Cell Deficiency: Confocal Microscopy Is the Preferred Technique”  
Symposium  
2019 AAO annual meeting  
San Francisco, CA
- Oct 14 2019 “DMEK: Safety and Outcomes”  
Symposium  
2019 AAO annual meeting  
San Francisco, CA
- Feb 25 2020 “Stem cell based therapy for corneal diseases”  
Developing Medical Countermeasures to Treat the Acute and Chronic Effects of Ocular Chemical Toxicity (NEI/DOD/NIAID)  
Rockville, Maryland
- Apr 23 2020 “DMEK vs. DSEK, patient selection and surgical techniques”  
25th Congress of Chinese Ophthalmological Society (Cancelled due to COVID pandemic)  
Xiamen, China
- Apr 23 2020 “Limbal stem cell function and epithelial thickness in the ageing cornea”  
Combined Symposium: The Cornea Society and the New Zealand National Eye Understanding corneal dystrophies degenerations and the ageing cornea  
APAO 2020 (Cancelled due to COVID pandemic)  
Xiamen, China
- Apr 23 2020 “Keratoconus – why have we yet to achieve 2020 in 2020?”  
Keratoconus Symposium  
APAO 2020 (Cancelled due to COVID pandemic)  
Xiamen, China
- May 2020 “Developing (and Redeveloping) a Research Question: an Essential Iterative Skill for a Clinician Scientist.”  
Clinician-Scientist Workshop  
2020 ARVO annual meeting (Cancelled due to COVID pandemic)  
Baltimore, MD

- June 25 2020 “New therapeutic approaches for corneal diseases”  
2020 Annual meeting of Canadian Ophthalmology Society (Cancelled due to COVID pandemic)  
Vancouver, Canada
- Sep 9 2020 “Diagnosis and Staging of Limbal Stem Cell Deficiency”  
Symposium “Limbal Stem Cell Deficiency”  
The 9th International Conference on the Tear Film & Ocular Surface (Cancelled due to COVID pandemic)  
Cernobbio, Italy
- Oct 15 2020 “Stem Cell Based Therapies for Corneal Diseases”  
Distinguished Lecture Series  
Cole Eye Institute, Cleveland Clinic Foundation  
Cleveland, OH

### **COURSE INSTRUCTION, WORKSHOPS AND SYMPOSIA**

- 2005 “Intravitreal Methotrexate, Effective and Safe?”  
Department of Ophthalmology Alumni Research Day  
Chicago, Illinois
- 2010 “Selective Keratoplasty, the Future of Corneal Transplantation?”  
Speaker, Cornea and Retina Symposium.  
Southern California College of Optometry.  
Los Angeles, California.
- 2010 “DALK and DSEK, Patient Selection and Surgical Techniques.”  
Instructor, Breakfast with the Experts.  
America Academy of Ophthalmology 2010 Annual Meeting.  
Chicago, Illinois
- 2011 “Stem Cell and Regenerative Medicine”  
Moderator, Cornea Paper Section  
ARVO 2011 Annual Meeting  
Fort Lauderdale, Florida
- 2011 “DALK and DSEK, Patient Selection and Surgical Techniques.”  
Moderator, Breakfast with the Experts.  
America Academy of Ophthalmology 2011 Annual Meeting  
Orlando, Florida
- 2012 “DSEK Indications and Patients Selections”  
Course Instructor  
The 27<sup>th</sup> Asian Pacific Academy of Ophthalmology Congress.  
Busan, South Korea
- 2012 “Boston Type I Keratoprosthesis: Patient Selection”  
Course Instructor  
The 27<sup>th</sup> Asian Pacific Academy of Ophthalmology Congress  
Busan, South Korea
- 2012 Challenging Cornea Cases  
Chair, Case Presentation

- The 27<sup>th</sup> Asian Pacific Academy of Ophthalmology Congress  
Busan, South Korea
- 2012 “Cornea Stem Cell I”  
Chair, Cornea Paper Section  
ARVO 2012 Annual Meeting  
Fort Lauderdale, Florida
- 2012 “New Insights on Limbal Stem Cell Regulation and Ex Vivo Expansion for  
Transplantation”  
Organizer and Moderator, Special Interest Group (SIG)  
ARVO 2012 Annual Meeting  
Fort Lauderdale, Florida
- 2012 “Dos and Don'ts in Descemet-Stripping Endothelial Keratoplasty and Deep Anterior  
Lamellar Keratoplasty”  
Moderator, Breakfast with the Experts  
AAO 2012 Annual Meeting  
Chicago, Illinois
- 2012 “Basic Techniques of DSEK and DALK”  
Course Instructor and training surgeon  
Ho Chi Minh City Eye Hospital  
Ho Chi Minh City, Vietnam
- 2013 “Stroma Keratocytes, Development and Dystrophies”  
Moderator, Paper Section  
ARVO 2013 Annual Meeting  
Seattle, Washington
- 2014 “Somatic and Pluripotent Stem Cells for Cornea Regeneration”  
Session Organizer  
XXI Biennial Meeting, International Society for Eye Research  
San Francisco, CA
- 2014 “Cornea and External Diseases Original Papers”  
Session Panelist  
2014 AAO meeting  
Chicago, IL
- 2015 “Eye Banking and Corneal Dystrophies Original Papers”  
Session Panelist  
World Cornea Congress VII  
San Diego, CA
- 2015 “DSAEK in Challenging Cases”  
Course Instructor  
2015 AAO meeting  
Las Vegas, NV
- 2015 “Gearing Up for Descemet Membrane Endothelial Keratoplasty: Pearls to Shorten  
the Learning Curve”  
Course Instructor



- 2015 AAO meeting  
Las Vegas, NV
- 2016 Establishment of Tissue Boundaries: Implications for Cornea and Conjunctiva  
Session Moderator  
Gordon Conference, Biology and Pathobiology of Cornea  
Ventura, CA
- 2016 “Cornea and External Diseases”  
Original Paper Part II, Session Panelist,  
2016 American Academy of Ophthalmology Annual Meeting,  
Chicago, IL
- 2016 “Gearing Up for Descemet Membrane Endothelial Keratoplasty: Pearls to Shorten  
the Learning Curve”,  
Course Instructor  
2016 American Academy of Ophthalmology Annual Meeting  
Chicago, IL
- 2017 “DMEK: Patient Selection, Surgical Techniques and Management of Complications”  
Course Faculty  
Ramathibodi hospital, Bangkok, Thailand
- 2017 “Gearing Up for Descemet Membrane Endothelial Keratoplasty: Pearls to Shorten  
the Learning Curve”,  
Course Instructor  
2017 American Academy of Ophthalmology Annual Meeting
- 2018 DMEK skill transfer course  
Course Faculty  
Tongren Hospital, Beijing, China
- 2018 “Bugs and Drugs: The Return”  
Moderator  
II PanCornea International Congress  
Cartagena, Columbia
- 2018 “Gearing Up for Descemet Membrane Endothelial Keratoplasty: Pearls to Shorten  
the Learning Curve”,  
Course Instructor  
2018 American Academy of Ophthalmology Annual Meeting
- 2018 Cornea Free Paper Session  
Moderator  
2018 American Academy of Ophthalmology Annual Meeting
- 2019 Controversies and Cutting Edge in Cornea  
Moderator  
Cornea360  
Scottsdale, AZ
- 2019 Cornea Day  
Program committee

- 2019 ASCRS annual meeting  
San Diego, CA
- 2019 Cornea Day  
Program co-director  
2019 AAO annual meeting  
San Francisco, CA
- 2019 “A Critical Evaluation of Top-Line Data: Cornea OTAs That Will Change Your Practice”  
Symposium co-chair  
2019 AAO annual meeting  
San Francisco, CA
- 2019 “Gearing Up for Descemet Membrane Endothelial Keratoplasty: Pearls to Shorten the Learning Curve”  
Course Instructor  
2019 AAO annual meeting  
San Francisco, CA
- 2019 “Surgery for Severe Corneal Ocular Surface Disease”  
Skill transfer Course  
Course Instructor  
2019 AAO annual meeting  
San Francisco, CA
- 2020 Maintaining and Restoring Corneal and Ocular Surface Health  
Gordon Conference  
Co-vice chair  
Lucca (Barga), Italy
- 2020 “Corneal Epithelial Homeostasis”  
Minisymposium  
Moderator  
2020 ARVO annual meeting (Cancelled due to COVID pandemic)  
Baltimore, MD

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