

CURRICULUM VITAE

Name Sandeep Jain, MD

Home Address 136 Wesley Avenue
Oak Park, IL 60130

Work Address Illinois Eye & Ear Infirmary
University of Illinois at Chicago
Cornea Service
1855 W. Taylor Street
M/C 648
Chicago, IL 60612

Home phone (708) 660-9555
Cellular (617) 699-8383
Office phone (clinic) (312) 996-8937
Office phone (lab) (312) 996-4476

E-mail jains@uic.edu

ACADEMIC APPOINTMENT

Aug 21- B.A. Field Professor of Ophthalmology
University of Illinois at Chicago

Aug 18- Professor of Ophthalmology
University of Illinois at Chicago

Aug 12-Aug18 Associate Professor of Ophthalmology
University of Illinois at Chicago

Aug 06- Aug12 Assistant Professor of Ophthalmology
University of Illinois at Chicago

Aug 01-July 06 Instructor in Ophthalmology
Harvard Medical School, Boston, MA

STAFF APPOINTMENT

Aug 06-present Director, Dry Eye and Ocular GVHD Clinic

Department of Ophthalmology & Visual Sciences
University of Illinois at Chicago

Aug 07-present Director, Corneal Translational Biology Laboratory
Department of Ophthalmology & Visual Sciences
University of Illinois at Chicago

Aug 04-July06 Clinical Associate in Surgery
Massachusetts General Hospital, Boston, MA

INDUSTRY APPOINTMENT

March 17- Founder and Chief Scientific Officer
Advaite, Inc, Chicago, IL

June 20- Founder and President
Selagine, Inc, Chicago, IL

September 20- Scientific Consultant, Neutrolis Inc.

November 21- Scientific Consultant, Roche Inc.

December 21 Scientific Consultant, GlaxoSmithKline Inc.

EDUCATION

Sept 06-June 07 Scholars for Teaching Excellence Faculty Fellowship (STEFF)
University of Illinois at Chicago
Mentors: Janet Riddle, MD and Mark Gellula, PhD.

July 99-June 01 Fellow in Cornea, External Diseases & Refractive surgery
Massachusetts Eye & Ear Infirmary
Harvard Medical School, Boston, MA.

July 96-June 99 Resident in Ophthalmology,
Edward S. Harkness Eye Institute,
Columbia University, New York, NY

July 95-June 96 Resident in Internal Medicine,
St.Luke's-Roosevelt Hospital Center, New York, NY

Nov 92-Mar 95 Fellow, Cornea & External Diseases,
The Wilmer Ophthalmological Institute,
The Johns Hopkins University, Baltimore, MD

July 83-Dec 88 Medical School
University of Delhi, New Delhi, India.

AWARDS AND HONORS

1981-1992 National Talent Scholarship
2001 Best of show video award, American Academy of Ophthalmology
2002 Achievement Award, American Academy of Ophthalmology
2007-2013 Best Doctors
2007 Scholars for Teaching Excellence Faculty Fellowship
2008 Warren & Clara Cole Foundation Award
2010 UIC Chancellor's Discovery Fund for Multidisciplinary Research Award
2011 Eye Bank Association of America Award
2012 & 13 Midwest Eye Bank Award
2013 UIC Chancellor's Innovation Fund Award
2013-2022 Editorial Board Member, *Investigative Ophthalmology & Visual Sciences*
2014 Editorial Board Member, *The Ocular Surface*
2014 Physician Scientist Award, Research to Prevent Blindness
2015 Faculty of the Year Award, UIC Department of Ophthalmology
2016 Editorial Board Member, *Scientific Reports*
2018 Inventor of the Year, UIC
2019 Research to Prevent Blindness Review Board
2020 CARE Award University of Illinois Hospitals and Clinics
2020, 21, 22 Castle Connolly Top Doctors
2022 Fellow of Association for Research in Vision & Ophthalmology (FARVO)

LICENSURES, CERTIFICATIONS & EXAMINATIONS

Illinois licensure (#36116595)
Massachusetts licensure (# 208155)
American Board of Ophthalmology Certification (2001)
ECFMG certification 1990
FMGEMS part 1 and 2 (1989), USMLE part 1 & 2 (1999), part 3 (2000)
Permanent registration. Medical council of India

PROFESSIONAL SOCIETIES

Association for Research in Vision and Ophthalmology (ARVO)
American Academy of Ophthalmology (AAO)
Society of Clinical Research Associates (SOCRA)
American Society of Cataract and Refractive Surgery
The Johns Hopkins Medical and Surgical Society

JOURNAL & GRANT REVIEWER

Guest reviewer for *Investigative Ophthalmology & Visual Science*, *Cornea*, *British Journal of Ophthalmology*, *Survey of Ophthalmology* and *Ophthalmology*.

Grant reviewer for Fight for Sight grants.

OFFICES & COMMITTEE & OTHER ASSIGNMENTS

2006-2010	Director, Fellowship Training University of Illinois Eye & Ear Infirmary
2010-2011	Member, Fellowship Training Committee University of Illinois Eye & Ear Infirmary
2006-2010	Member, Research Committee University of Illinois Eye & Ear Infirmary
2007-2011	Co-Director, Illinois Eye Review
2006-2011	Editor – The Eye Digest
2008-	Director, Corneal Neurobiology Laboratory University of Illinois Eye & Ear Infirmary
2012	Search Committee for Head of Ophthalmology, UIC College of Medicine
2012-	Continuing Medical Education Committee, UIC College of Medicine
2014-	Faculty Member, Corneal & External Disorders Section, F1000
2015-	Pathophysiology Subcommittee member – DEWS II
2015-	Director, Chicago Chronic GVHD Meeting
2015-	Director, Cell and Molecular Biology Core, UIC Dept. of Ophthalmology
2016-	Member, Dry Eye Advisory Board, Alcon Inc.
2016-	Member, Dry Eye Advisory Board, Capricor Inc.
2018-	Co-Director, Clinician Scientist Development Program (K12) UIC Department of Ophthalmology
2018, 19	NIH Study Section member ZEY1 VSN Individual Training Grants
2019-	Member, Dry Eye Advisory Board, Topivert Inc.
2019-	Member, Dry Eye Advisory Panel, Verily.
2020-	Core Member, Ophthalmology Section, NIH cGVHD Consensus Group
2021, 22	NIH Study Section ad-hoc member ZRG1 ETTN-P Vision Imaging, Bioengineering and Low Vision Technology Development
2022	Search Committee Member for Director of University of Illinois Collaborative Engagement in Novel Therapeutic Research and Enterprise
2022	Member, External Scientific Oversight Committee, NEI/NIH Ocular Surface Innervation consortium

RESEARCH GRANTS

Active Support:

NEI R24EY032440 Immunotherapy for Ocular Surface Diseases

Role: Principal Investigator

(Impact score = 14.0)

01/01/2021 – 12/31/2025 (\$10.15 Million total 5-year funding, direct + indirect)

The major goal of this translational research project is to establish a public-private partnership for developing pooled human immune globulin eye drops as a treatment for dry eye disease.

NEIR13EY027189 The Chicago Chronic GVHD Meeting

Role: Principal Investigator

08/01/2016 – 07/31/2023 (\$25,000 total)

The major goal of this conference grant is to conduct an annual meeting in order to stimulate interdisciplinary collaborations and breakthroughs in the area chronic systemic GVHD and ocular GVHD.

NEI P30EY001792 - P30 core grant for vision research

09/30/2021-09/29/2026

Role: Core Co-Director - Translational Core for Therapeutic and Diagnostic Development

The overarching goal of the Translational Core is to provide expertise, equipment, software and leverage departmental and investigator resources to enhance translational applications of basic science advances made by the vision science investigators.

Completed:

NEI R01EY024966 Innate Immune Aspects of Ocular Surface Disease

Role: Principal Investigator

(Percentile score = 11.0)

08/01/2015 – 07/31/2021 (\$3,629,242 total 5-year funding, direct + indirect)

The major goal of this project is to perform a phase I/II translational clinical trial to determine the safety and efficacy of rhDNase I eye drops for treating patients with ocular GVHD.

NEI R01EY023656 Molecular and Cellular Aspects of Corneal Nerve Regeneration

Role: Principal Investigator

(Percentile score = 1.0)

08/01/2013 – 07/31/2018 (\$ 2,585,828 total 5-year funding, direct + indirect)

The major goal of this project is to determine the role of myeloid cells and semaphorin-7a in promoting corneal nerve regeneration.

Research to Prevent Blindness Physician Scientist Award

Safety and Efficacy of DNase I Eye Drops in Dry Eye Disease

07/01/14-06/30/17

Role: Principal Investigator

The major goal of this study is to determine safety and efficacy of DNase eye drops in patients with severe tear-deficient dry eye disease due to Sjogren syndrome.

UIC Chancellor's Innovation Fund Award.

New Drug for Treating Dry Eye Disease

10/01/13-09/30/17

Role: Principal Investigator

The major goal of this study is to determine safety and preliminary efficacy of DNase I eye drops in patients with Sjogren syndrome.

NEI K08 EY018874 Keratocyte role in guidance of corneal nerves

2/1/2009 – 01/31/2014, \$1,237,481 (Total 5 year funding)

Role: Principal Investigator

The major goals of this project are to define the role of keratocyte expressed nerve guidance proteins (EphB1/ephrinB1) in corneal nerve regeneration.

ARRA NEI K08EY018874-01A1S1 Keratocyte role in guidance of corneal nerves

08/01/2009 – 01/31/2012, \$175,392 (Total 2 year funding)

Role: Principal Investigator

This ARRA supplement was awarded to enable hiring of a technician and procuring a stereofluorescence microscope for use with Thy1-YFP mice.

NEI R01 EY010101 Metalloproteinase Expression in Corneal Wounds

01/01/10 – 31/12/2014, 1.8 million (total 5 yr).

Role: Co-Investigator (5% effort) [PI – Dimitri Azar, MD]

Midwest Eye Banks Grant. Safety and Efficacy of DNase I Eye Drops in Dry Eye Disease

Principal Investigator

7/1/2013-6/30/14, \$15,000

Role: Principal Investigator

The major goal of his project is to determine tolerability and efficacy of topical DNase I eye drops in patients with DED.

UIC Chancellor's Discovery Fund for Multidisciplinary Research

Numerical and Experimental study for Collagen cross linking treatment for keratoconus

07/01/2010 – 06/30/2012, \$40,000

Role: Principal Investigator

This pilot grant provides seed funding for establishing interdisciplinary collaboration between medicine and engineering. The grant will provide funds to explore a novel approach to improving the outcome of collagen crosslinking to treat keratoconus.

Warren & Clara Cole Advisory Board (WCCAB)

7/01/08-1/31/09 \$ 40,000

Role: Principal Investigator

Career development Award to study nerve regeneration in the cornea.

PATENTS

Patent Grants

1. Patent grant: Treatment and diagnosis of ocular surface disorders
Inventors: **Sandeep Jain**, Karthik Musunuri
Original Assignee: Advaite, LLC
Publication number: US 110058713 B2
Publication date: July 13, 2021
2. Patent grant: Composition and method for treating Nucleic Acid-related eye Disease
Inventor: **Sandeep Jain**, MD
Applicant: The Board Of Trustees Of The University Of Illinois
Publication numbers: US9867871B2, US10328129B2, US11376312B2
Publication date: Jan 16, 2018
3. Patent grant: Methods and compositions for treating dry eye disease and other eye disorders
Inventors: **Sandeep Jain**, Uday Bhaskar Kompella, Shankar Musunuri
Original Assignee Ocugen, Inc., University Of Illinois
Publication number: US9877964B2
Publication date: Jan 30, 2018
4. Patent grant: Methods and Compositions for Treating Dry Eye Disease and Other Eye Disorders.
Inventors: **Sandeep Jain**, Uday Bhaskar Kompella, Shankar Musunuri
Original Assignee: Ocugen, Inc., The Board Of Trustees Of The University Of Illinois
Publication number: US9597328 B2
Publication date: Mar 21, 2017
5. Patent grant: Transcorneal Vision Assistance Device
Inventors: Dimitri Azar, Jose de la Cruz, **Sandeep Jain**.
Original Assignee: The Board Of Trustees Of The University Of Illinois,
Publication number: US8506626 B2
Publication date: Aug 13, 2013

Patent Applications:

1. Patent application: Treatment and Diagnosis of Autoantibody- Mediated Eye Diseases

Inventor: **Sandeep Jain**
Original Assignee: University Of Illinois
Publication number: PCT/US19/60566
Publication date: Nov 8, 2019
2. Patent application: Ophthalmic compositions and methods of use

Inventors: Shankar Musunuri, **Sandeep Jain**, Rasappa Arumugham, Arun K. Upadhya, Matthew Nudell, Gopalam Somasekhar
Original Assignee: Ocugen, Inc.
Publication number: US 2018/0333414 A1
Publication date: Nov 22, 2018

3. Patent application: Preservative free ocular compositions and methods for using the same for treating dry eye disease and other eye disorders

Inventors: Sandeep Jain, Uday Bhaskar Kompella, Shankar Musunuri
Original Assignee: Ocugen, Inc., University Of Illinois
Publication number: US2018/0153885 A1
Publication date: Jun 7, 2018

4. Patent application: Endostatin peptides and use thereof

Inventors: Jin-Hong Chang, Dimitri T. Azar, Sandeep Jain
Original Assignee: University Of Illinois
Publication number: WO2013158617A1
Publication date: Oct 24, 2013

PUBLICATIONS

1. Jain S, Azar DT: Extracellular matrix and growth factors in corneal wound healing. *Curr Opin Ophthalmol* 1994;5(4):31-4.
2. McCally RL, Connolly PJ, Jain S, Azar DT. Objective measurements of haze following phototherapeutic excimer laser ablation of cornea. *SPIE Vol. 2126 Ophthal Technol IV*:161-165, 1994.
3. Jain S, Hahn TW, McCally RL, Azar DT. Antioxidants reduce corneal light scattering after excimer keratectomy. *Lasers Surg Med* 1995;17:160-5.
4. Jain S, Khoury JM, Chamon W, Azar DT Corneal light scattering after laser in situ keratomileusis and photorefractive keratectomy. *Am J Ophthalmol* 1995 Oct;120(4):532-4
5. Jain S, Arora I, Azar DT. Success of monovision in presbyopes: Review of the literature and potential applications to refractive surgery. *Surv Ophthalmol* 1996;40:491-499
6. Braunstein RE, Jain S, McCally RL, Stark WJ, Connolly PJ, Azar DT. Objective measurement of corneal light scattering after excimer laser keratectomy. *Ophthalmology* 1996;103:439-43.
7. Azar DT, Hahn TW, Jain S, Y Chen, W. Stettler-Stevenson. Matrix Metalloproteinase are expressed in cornea after excimer laser keratectomy. *Cornea* 1996;15(1):18-24.
8. Jain S., Azar D.T. Ocular Infections after Refractive Keratotomy. *J Refract Surg* 1996;12:148-55.
9. Jain S., Stark WJ, Green WR, Prendergast RA, Azar DT. Intrastromal epithelial migration follows deep excimer annular keratectomy. *Cornea* 1996;15:248-57.
10. Azar DT, Pluznik D, Jain S, Khoury JM. Gelatinase B and A expression after Laser In Situ Keratomileusis and Photorefractive Keratectomy. *Arch Ophthalmol* 1998;116:1206-1208
11. Azar DT, Jain S, Sambursky R. A new surgical technique of microkeratome-assisted deep lamellar keratoplasty with a hinged flap. *Arch Ophthalmol* 2000;118:1112-15

12. Lin HC, Chang J-H, Jain S, Gabison E, Kure T, Kato T, Fukai N, Olsen BR, Azar DT. Matrilysin cleavage of corneal collagen type XVIII NC1 domain and generation of a 28-kDa fragment. *Invest Ophthalmol Vis Sci.* 2001;42:2517-24.
13. Jain S, McCally RL, Connolly PJ, Azar DT. Mitomycin-C reduces corneal light scattering following excimer keratectomy. *Cornea* 2001;20:45-9.
14. Jain S, Azar DT. Topical mitomycin-C for subepithelial fibrosis after refractive corneal surgery. *Ophthalmology* 2001;108:239-40.
15. Azar DT, Jain S, Sambursky R, Strauss L. Microkeratome-assisted posterior keratoplasty: A new surgical technique. *J Cat Refract Surg* 2001;27:353-6.
16. Sippl K, Jain S, Azar DT. Monovision achieved with excimer laser refractive surgery. *Int Ophthalmol Clin* 2001;41:91-101
17. Jain S, Ou R, Azar DT. Monovision outcomes in presbyopes after refractive surgery. *Ophthalmology.* 2001;108:1430-3.
18. Jain S, Azar DT. New lamellar keratoplasty techniques: Posterior lamellar and Deep lamellar keratoplasty. *Curr Opin Ophthalmol.* 2001;12:262-8
19. Azar DT, Ang RT, MD, Lee JB, Kato T, Chen CC, Jain S, Gabison E, Abad JC. Laser Epithelial Keratomileusis (LASEK): Electron microscopy and visual outcomes of flap PRK. *Curr Opin Ophthalmol.* 2001;12:323-8
20. Jain S, Azar DT, Pineda R. Management of astigmatism after corneal trauma. *Int Ophthalmol Clin.* 2002;42(3):47-55.
21. Azar DT, Jain S. Microkeratome-assisted posterior keratoplasty. *J Cataract Refract Surg.* 2002;28(5):732-3.
22. Chang MA, Jain S, Azar DT. Infections following laser in situ keratomileusis: an integration of the published literature. *Surv Ophthalmol.* 2004;49(3):269-80.
23. McCally RI, Connolly PJ, Stark WJ, Jain S, Azar DT. Identical excimer laser PTK treatments in rabbits result in two distinct haze responses. *Invest Ophthalmol Vis Sci.* 2006;47(10):4288-94.
24. Sakimoto T, Kim TI, Ellenberg D, Fukai N, Jain S, Azar DT, Chang JH. Collagen XVIII and corneal reinnervation following keratectomy. *FEBS Lett.* 2008;582(25-26):3674-80.
25. Azar DT, Casanova FH, Mimura T, Jain S, Chang JH. Effect of MT1-MMP deficiency and overexpression in corneal keratocytes on vascular endothelial cell migration and proliferation. *Curr Eye Res.* 2008;33(11):954-62.
26. Azar DT, Ghanem RC, de la Cruz J, Hallak JA, Kojima T, Al-Tobaigy FM, Jain S. Thin-flap (sub-Bowman keratomileusis) versus thick-flap laser in situ keratomileusis for moderate to high myopia: case-control analysis. *J Cataract Refract Surg.* 2008;34(12):2073-8.
27. Ellenberg D, Shi J, Jain S, Chang JH, Ripps H, 28. Shi J, Ellenberg D, Kim JY, Qian H, Ripps H, Jain S, Chang JH, Azar DT. Restoration of electroretinogram activity in exenterated swine eyes following ophthalmic artery anastomosis. *Restor Neurol Neurosci.* 2009;27(4):351-7.
28. Ellenberg D, Shi J, Jain S, Chang JH, Ripps H, Brady S, Melhem ER, Lakkis F, Adamis A, Chen DF, Ellis-Behnke R, Langer RS, Strittmatter SM, Azar DT. Impediments to eye transplantation: ocular viability following optic-nerve transection or enucleation. *Br J Ophthalmol.* 2009 Sep;93(9):1134-40.

29. Tu EY, Joslin CE, Nijm LM, Feder RS, Jain S, Shoff ME. Polymicrobial keratitis: Acanthamoeba and infectious crystalline keratopathy. *Am J Ophthalmol.* 2009 Jul;148(1):13-9
30. Oliveira HB, Sakimoto T, Javier JA, Azar DT, Wiegand SJ, Jain S, Chang JH. VEGF Trap(R1R2) suppresses experimental corneal angiogenesis. *Eur J Ophthalmol.* 2010 Jan-Feb;20(1):48-54.
31. Ellenberg D, Azar DT, Hallak JA, Tobaigy F, Han KY, Jain S, Zhou Z, Chang JH. Novel aspects of corneal angiogenic and lymphangiogenic privilege. *Prog Retin Eye Res.* 2010 Jan 25.
32. Azar DT, Casanova FH, Mimura T, Jain S, Zhou Z, Han KY, Chang JH. Corneal Epithelial MT1-MMP Inhibits Vascular Endothelial Cell Proliferation and Migration. *Cornea.* 2010 Mar;29(3):321-30.
33. Yeh SI, Han KY, Sabri A, Rosenblatt MI, Azar DT, Jain S, Chang JH. MMP-7 knock-in corneal fibroblast cell lines secrete MMP-7 with proteolytic activity towards collagen XVIII. *Curr Eye Res.* 2010;35:799-805.
34. Ghanem RC, Han KY, Rojas J, Ozturk O, Kim DJ, Jain S, Chang JH, and Azar DT. Semaphorin 7A promotes angiogenesis in an experimental corneal neovascularization model. Accepted in *Current Eye Research*.
35. Chang JH, Garg NK, Lunde E, Han KY, Jain S, Azar DT. Corneal neovascularization: An anti-VEGF therapy review. *Surv Ophthalmol.* 2012;57:415-29.
36. Tshionyi M, Shay E, Lunde E, Lin A, Han KY, Jain S, Chang JH, Azar DT. Hemangiogenesis and lymphangiogenesis in corneal pathology. *Cornea.* 2012;31:74-80.
37. Han KY, Azar DT, Sabri A, Lee H, Jain S, Lee BS, Chang JH. Characterization of the interaction between endostatin short peptide and VEGF receptor 3. *Protein Pept Lett.* 2012;19:969-74.
38. Han KY, Fahd DC, Tshionyi M, Allemann N, Jain S, Chang JH, Azar DT. MT1-MMP modulates bFGF-induced VEGF-A expression in corneal fibroblasts. *Protein Pept Lett.* 2012 Jun 4. [Epub ahead of print]
39. Jain S, De la Cruz J, Kang E, Kojima T, Chang JH, Kim JY. Expression of Phosphorylated Heat Shock Protein 27 During Corneal Epithelial Wound Healing. *Cornea* 2012;31:820-7.
40. Namavari A, Chaudhary S, Sarkar J, Yco L, Patel K, Han KY, Yue BY, Chang JH, Jain S. In vivo serial imaging of regenerating corneal nerves after surgical transection in transgenic thy1-YFP mice. *Invest Ophthalmol Vis Sci.* 2011;52:8025-32.
41. Namavari A, Chaudhary S, Chang JH, Yco L, Sonawane S, Khanolkar V, Yue BY, Sarkar J, Jain S. Cyclosporine immunomodulation retards regeneration of surgically transected corneal nerves. *Invest Ophthalmol Vis Sci.* 2012;53(2):732-40.
42. Chaudhary S, Namavari A, Yco L, Chang JH, Sonawane S, Khanolkar V, Sarkar J, Jain S. Neurotrophins and nerve regeneration-associated genes are expressed in the cornea after lamellar flap surgery. *Cornea.* 2012;31:1460-7.
43. Sarkar J, Chaudhary S, Namavari A, Ozturk O, Chang JH, Yco L, Sonawane S, Khanolkar V, Hallak J, Jain S. Corneal neurotoxicity due to topical benzalkonium chloride. *Invest Ophthalmol Vis Sci.* 2012;53:1792-802.
44. Namavari A, Chaudhary S, Ozturk O, Chang JH, Yco L, Sonawane S, Katam N, Khanolkar V, Hallak J, Sarkar J, Jain S. Semaphorin 7a links nerve regeneration and inflammation in the cornea. *Invest Ophthalmol Vis Sci.* 2012;53:4575-85.

45. Sonawane S, Khanolkar V, Namavari A, Chaudhary S, Gandhi S, Tibrewal S, Jassim SH, Shaheen B, Hallak J, Horner JH, Newcomb M, Sarkar J, Jain S. Ocular surface extracellular DNA and nuclease activity imbalance: a new paradigm for inflammation in dry eye disease. *Invest Ophthalmol Vis Sci.* 2012;53:8253-63.
Accompanying editorial comment: McDermott AM. New insight into dry eye inflammation. *Invest Ophthalmol Vis Sci.* 2012 Dec 17;53(13):8264. doi: 10.1167/iovs.12-11386.
46. Gonzalez L, Loza RJ, Han KY, Sunoqrot S, Cunningham C, Purta P, Drake J, Jain S, Hong S, Chang JH. Nanotechnology in corneal neovascularization therapy--a review. *J Ocul Pharmacol Ther.* 2013;29:124-34.
47. Tu EY, Jain S. Topical Linezolid 0.2% for the Treatment of Vancomycin-Resistant or Vancomycin-Intolerant Gram-Positive Bacterial Keratitis. *Am J Ophthalmol.* 2013;155:1095-1098
48. Sarkar J, Chaudhary S, Jassim SH, Ozturk O, Chamon W, Ganesh B, Tibrewal S, Gandhi S, Byun YS, Hallak J, Mahmud DL, Mahmud N, Rondelli D, Jain S. CD11b+GR1+ myeloid cells secrete NGF and promote trigeminal ganglion neurite growth: implications for corneal nerve regeneration. *Invest Ophthalmol Vis Sci.* 2013;54:5920-36.
49. Hallak JA, Jassim S, Khanolkar V, Jain S. Symptom burden of patients with dry eye disease: a four domain analysis. *PLoS One.* 2013 Dec 13;8(12):e82805.
50. Tibrewal S, Sarkar J, Jassim SH, Gandhi S, Sonawane S, Chaudhary S, Byun YS, Ivanir Y, Hallak J, Horner JH, Newcomb M, Jain S. Tear Fluid Extracellular DNA: Diagnostic and Therapeutic Implications in Dry Eye Disease. *Invest Ophthalmol Vis Sci.* 2013;54:8051-62.
51. Ogawa Y, Kim SK, Dana R, Clayton J, Jain S, Rosenblatt MI, Perez VL, Shikari H, Riemens A, Tsubota K. International Chronic Ocular Graft-vs-Host-Disease (GVHD) Consensus Group: Proposed Diagnostic Criteria for Chronic GVHD (Part I). *Sci Rep.* 2013;3:3419.
52. Shaheen BS, Bakir M, Jain S. Corneal nerves in health and disease. *Surv Ophthalmol.* 2014;59:263-85.
53. Byun YS, Tibrewal S, Kim E, Yco L, Sarkar J, Ivanir Y, Liu CY, Sano CM, Jain S. Keratocytes derived from spheroid culture of corneal stromal cells resemble tissue resident keratocytes. *PLoS One.* 2014 Nov 10;9(11):e112781.
54. Tibrewal S, Ivanir Y, Sarkar J, Nayeb-Hashemi N, Bouchard CS, Kim E, Jain S. Hyperosmolar stress induces neutrophil extracellular trap formation: implications for dry eye disease. *Invest Ophthalmol Vis Sci.* 2014 Nov 18;55(12):7961-9.
55. Hou JH, Prickett AL, Cortina MS, Jain S, de la Cruz J. Safety of femtosecond laser-assisted cataract surgery performed by surgeons in training. *J Refract Surg.* 2015 Jan;31(1):69-70.
56. Hallak JA, Tibrewal S, Mohindra N, Gao X, Jain S. Single Nucleotide Polymorphisms in the BDNF, VDR, and DNASE 1 Genes in Dry Eye Disease Patients: A Case-Control Study. *Invest Ophthalmol Vis Sci.* 2015 Sep;56(10):5990-6.
57. Hallak JA, Tibrewal S, Jain S. Depressive Symptoms in Patients With Dry Eye Disease: A Case-Control Study Using the Beck Depression Inventory. *Cornea.* 2015 Dec;34(12):1545-50.
58. Hou JH, Prickett AL, Cortina MS, Jain S, de la Cruz J. Safety of femtosecond laser-assisted cataract surgery performed by surgeons in training. *J Refract Surg.* 2015 Jan;31(1):69-70.

59. Sivaraman KR, Jivrajka RV, Soin K, Bouchard CS, Movahedan A, Shorter E, Jain S, Jacobs DS, Djalilian AR. Superior Limbic Keratoconjunctivitis-like Inflammation in Patients with Chronic Graft-Versus-Host Disease. *Ocul Surf*. 2016 May 11. pii: S1542-0124(16)30036-2.
60. Shah D, Ali M, Pasha Z, Jaboori AJ, Jassim SH, Jain S, Aakalu VK. Histatin-1 Expression in Human Lacrimal Epithelium. *PLoS One*. 2016 Jan 29;11(1):e0148018.
61. Gulati S, Jain S. Ocular Pharmacology of Tear Film, Dry Eye, and Allergic Conjunctivitis. *Handb Exp Pharmacol*. 2017;242:97-118.
62. Shah D, Ali M, Shukla D, Jain S, Aakalu VK. Effects of histatin-1 peptide on human corneal epithelial cells. *PLoS One*. 2017 May 23;12(5):e0178030.
63. Bron AJ, de Paiva CS, Chauhan SK, Bonini S, Gabison EE, Jain S, Knop E, Markoulli M, Ogawa Y, Perez V, Uchino Y, Yokoi N, Zoukhri D1, Sullivan DA. TFOS DEWS II pathophysiology report. *Ocul Surf*. 2017 Jul;15(3):438-510. PMID: 28736340
64. Dry Eye Assessment and Management Study Research Group, Asbell PA, Maguire MG, Pistilli M, Ying GS, Szczotka-Flynn LB, Hardten DR, Lin MC, Shtein RM. n-3 Fatty Acid Supplementation for the Treatment of Dry Eye Disease. *N Engl J Med*. 2018 May 3;378(18):1681-1690. PMID: 29652551
65. Mun C, Gulati S, Tibrewal S, Chen YF, An S, Surenkhuu B, Raju I, Buwick M, Ahn A, Kwon JE, Atassi N, Pradeep A, Rondelli D, Jain S. A Phase I/II Placebo-Controlled Randomized Pilot Clinical Trial of Recombinant Deoxyribonuclease (DNase) Eye Drops Use in Patients With Dry Eye Disease. *Transl Vis Sci Technol*. 2019 May 2;8(3):10. PMID: 31110911
66. Sarkar J, Milani B, Kim E, An S, Kwon J, Jain S. Corneal nerve healing after in situ laser nerve transection. *PLoS One*. 2019 Jun 27;14(6):e0218879.
67. An S, Raju I, Surenkhuu B, Kwon JE, Gulati S, Karaman M, Pradeep A, Sinha S, Mun C, Jain S. Neutrophil extracellular traps (NETs) contribute to pathological changes of ocular graft-vs.-host disease (oGVHD) dry eye: Implications for novel biomarkers and therapeutic strategies. *Ocul Surf*. 2019 Apr 6. pii: S1542-0124(19)30051-5. PMID: 30965123
Accompanying editorial comment : Neutrophil Extracellular Traps (NETs) contribute to Pathological Changes of ocular Graft-vs.-Host Disease (oGVHD) Dry Eye: Implications for novel Biomarkers and Therapeutic Strategies by Seungwon An et al. Petricek I, Pavletic SZ. *Ocul Surf*. 2019 Jun 18. pii: S1542-0124(19)30222-8. PMID: 31226421
68. Kalmodia S, Son K-N, Cao D, Lee B-S, Surenkhuu B, Shah D, Ali M, Balasubramaniam A, Jain S, Aakalu V. Presence of Histatin-1 in Human Tears and Association with Aqueous Deficient Dry Eye Diagnosis: A Preliminary Study. *Sci Reports*. *Sci Rep*. 2019 Jul 16;9(1):10304.
69. Kwon J, Surenkhuu B, Raju I, Atassi N, Mun J, Chen YF, Sarwar MA, Rosenblatt M, Pradeep A, An S, Dhall N, Mun C, Jain S. Pathological consequences of anti-citrullinated protein antibodies in tear fluid and therapeutic potential of pooled human immune globulin-eye drops in dry eye disease. *Ocul Surf*. 2020 Jan;18(1):80-97.
Accompanying editorial comment : Genschmer KR, Russel DW, Blalock JE. Too much of a good thing, how chronic neutrophilic inflammation can drive human disease. *Ocul Surf*. 2020 Apr;18(2):193-195
70. Wolff D, Radojcic V, Lafyatis R, Cinar R, Rosenstein RK, Cowen EW, Cheng GS, Sheshadri A, Bergeron A, Williams KM, Todd JL, Teshima T, Cuvelier GDE, Holler E,

- McCurdy SR, Jenq RR, Hanash AM, Jacobsohn D, Santomasso BD, Jain S, Ogawa Y, Steven P, Luo ZK, Dietrich-Ntoukas T, Saban D, Bilic E, Penack O, Griffith LM, Cowden M, Martin PJ, Greinix HT, Sarantopoulos S, Socie G, Blazar BR, Pidala J, Kitko CL, Couriel DR, Cutler C, Schultz KR, Pavletic SZ, Lee SJ, Paczesny S. National Institutes of Health Consensus Development Project on Criteria for Clinical Trials in Chronic Graft-versus-Host Disease: IV. The 2020 Highly morbid forms report. *Transplant Cell Ther.* 2021 Jun 10;S2666-6367(21)00949-0. doi: 10.1016/j.jtct.2021.06.001. Epub ahead of print. PMID: 34217703.
71. Koujah L, Allaham M, Patil CD, Ames JM, Suryawanshi RK, Yadavalli T, Agelidis A, Mun C, Surenkhuu B, Jain S, Shukla D. Entry receptor bias in evolutionarily distant HSV-1 clinical strains drives divergent ocular and nervous system pathologies. *Ocul Surf.* 2021 Mar 22;S1542-0124(21)00015-X. doi: 10.1016/j.jtos.2021.03.005. Epub ahead of print. PMID: 33766740.
 72. Nair S, Vanathi M, Mukhija R, Tandon R, Jain S, Ogawa Y. Update on ocular graft-versus-host disease. *Indian J Ophthalmol.* 2021 May;69(5):1038-1050. doi: 10.4103/ijo.IJO_2016_20. PMID: 33913829.
 73. Park RB, Jain S, Han H, Park J. Ocular surface disease associated with immune checkpoint inhibitor therapy. *Ocul Surf.* 2021 Apr;20:115-129. doi: 10.1016/j.jtos.2021.02.004. Epub 2021 Feb 19. PMID: 33610743.
 74. Kitko CL, Pidala J, Schoemans HM, Lawitschka A, Flowers ME, Cowen EW, Tkaczyk E, Farhadfar N, Jain S, Steven P, Luo ZK, Ogawa Y, Stern M, Yanik GA, Cuvelier GDE, Cheng GS, Holtan SG, Schultz KR, Martin PJ, Lee SJ, Pavletic SZ, Wolff D, Paczesny S, Blazar BR, Sarantopoulos S, Socie G, Greinix H, Cutler C. National Institutes of Health Consensus Development Project on Criteria for Clinical Trials in Chronic Graft-versus-Host Disease: Iia. The 2020 Clinical Implementation and Early Diagnosis Working Group Report. *Transplant Cell Ther.* 2021 Jul;27(7):545-557. doi: 10.1016/j.jtct.2021.03.033. Epub 2021 Apr 9. PMID: 33839317
 75. Katz EA, Sunshine S, Mun C, Sarwar M, Surenkhuu B, Pradeep A, Jain S. Combinatorial therapy with immunosuppressive, immunomodulatory and tear substitute eyedrops ("Triple Play") in Recalcitrant Immunological Ocular Surface Diseases. *Ocul Surf.* 2021 Nov 10;23:1-11. doi: 10.1016/j.jtos.2021.11.002. PMID: 34768002
 76. Ogawa Y, Dana R, Kim S, Jain S, Rosenblatt MI, Perez VL, Clayton JA, Alves M, Rocha EM, Amparo F, Seo KY, Wang Y, Shen J, Oh JY, Vanathi M, Nair S, Na KS, Riemens A, Sippel K, Soifer M, Wang S, Trindade M, Kim MK, Yoon CH, Yagi R, Hiratsuka R, Ogawa M, Shimizu E, Sato Y, Pflugfelder S, Tsubota K. Multicenter prospective validation study for international chronic ocular graft-versus-host disease consensus diagnostic criteria. *Ocul Surf.* 2022 Oct;26:200-208. doi: 10.1016/j.jtos.2022.09.002. Epub 2022 Sep 18. PMID: 36130695.

BOOK CHAPTERS

1. Azar DT, Jain S, Woods K, Stark W, Sanders DR, Kinoshita S. Phototherapeutic keratectomy: The VISX experience. In Salz JJ, McDonnell PJ, McDonald MB (eds): *Corneal Laser Surgery*. Mosby-Year Book, Inc., St. Louis, MO, 1995: 213-26.

2. Jain S, Azar DT: Pharmacologic modulation of wound healing after keratorefractive surgery. In Azar D.T. (ed): Refractive surgery, Appleton Lange, NY, 1997: 63-74
3. Jain S, Azar DT: Monovision refractive surgery. In Azar D.T. (ed): Refractive surgery, Appleton Lange, NY, 1997: 135-142
4. Jain S, Azar DT: Ocular Infections after refractive surgery. In Azar D.T. (ed): Refractive surgery, Appleton Lange, NY, 1997: 319-327
5. Azar DT, Hahn TW, Jain S: Corneal anatomy and physiology. In Azar D.T. (ed): Refractive surgery, Appleton Lange, NY, 1997: 19-28
6. Azar DT, Jain S, Stark WJ: Phototherapeutic keratectomy. In Azar D.T. (ed): Refractive surgery, Appleton Lange, NY, 1997: 501-518
7. Azar DT, Jain S, Stark WJ: Phototherapeutic Keratectomy. In Krachmer JH, Mannis MJ, Holland EJ (ed): Cornea: Fundamentals of cornea and external disease. St. Louis, MO: Mosby-Year Book, Inc., 1997: 2211-2224.
8. Azar DT, Talamo JH, Helena MC, Stark WJ, Chang SW, Jain S. PTK: Indications, Techniques, Postoperative care, and Complications Management. In Talamo JH, Kreuger RR (eds): The Excimer Manual. A clinician's guide to excimer laser surgery. Boston, MA. Little, Brown and Company Inc. 1997;173-99.
9. Ashraf, M.F., Jain, S., Stepp, M.A., and Azar, D.T.: Corneal wound healing after excimer keratectomy. In Azar, D.T., Steinert, R., and Stark, W., Excimer Laser Phototherapeutic Keratectomy. Baltimore, Williams and Wilkins, 1997, pp. 33-50.
10. Douros S, Jain S, Gorman D, Cotliar AM. Leukoria. In Gallin PF (ed): Pediatric Ophthalmology. A clinical guide. New York, NY. Thieme Medical Publishers, Inc. 2000;241-250.
11. Kruger E, Gorman B, Schubert H, Jain S. Ocular trauma, In Gallin PF (ed): Pediatric Ophthalmology. A clinical guide. New York, NY. Thieme Medical Publishers, Inc. 2000;185-203.
12. Vajpayee RB, Jain S, Azar DT. Refractive cataract intraocular lens surgery. In Azar DT, Stark WJ, Yoo SH, Azar N (eds). Intraocular lenses in cataract and refractive surgery. W.B. Saunders 2001.
13. Jain S, Azar DT, Vajpayee RB. Accommodating and Adjustable IOLs. In Azar DT, Koch DD (eds). Hyperopia and Presbyopia. New York, NY. Marcel Dekker, Inc 2003:279-86.
14. Jain S, Chang M. Preoperative Considerations: Patient Selection and Evaluation. In Foster CS, Azar DT, Dohlman CH (eds). The Cornea. Philadelphia, PA. Lippincott Williams & Wilkin, 2005:1117-20.
15. Fahad D, de la Cruz J, Jain S, Azar DT. Corneal Haze after Refractive Surgery. In Alio JL and Azar, DT (ed): Management of Complications in Refractive Surgery. Springer-Verlag Berlin Heidelberg, 2008:179-185.
16. de la Cruz J, Hallak J, Azar DT, Jain S. Infections after Refractive Surgery. In Alio JL and Azar, DT (ed): Management of Complications in Refractive Surgery. Springer-Verlag Berlin Heidelberg, 2008:34-39.
17. Gandhi S, Jain S. The Anatomy and Physiology of Cornea. In Cortina MS, de la Cruz J (eds): Keratoprosthesis and Artificial Corneas – Fundamentals and Surgical Applications. Springer-Verlag Berlin Heidelberg, 2015:19-26.
18. Gulati S, Jain S. Ocular Pharmacology of Tear Film and Dry Eye. In Azar D, Whitcup S. (eds): Handbook of Experimental Pharmacology, 2016

19. Ketki S, Djalilian A, Jain S. Stepwise Management of chronic ocular GVHD. In Djalilian A. (ed): Case Based update in ocular surface disease. Springer, 2016
20. Tibrewal S, Jain S. Dry Eye Syndrome: Management of Post LASIK Dry Eye Disease. In Alio J, Azar D, Abbouda A, Aswad A. (eds): Difficult and complicated cases in Refractive Surgery. Springer- Verlag, Heidelberg, Germany, 2015: 205-207.
21. Sunshine SB, Dhall N, Harissi-Dagher M, Dana R, Mun C, Jain S. Dry Eye Diagnosis and Management. In Albert D, Miller J, Azar D, Young LH (eds): Albert and Jakobiec's Principles and Practices of Ophthalmology. Springer- Verlag, Heidelberg, Germany, 2021 (in press).
22. Roca D, Mun J, Surenkhuu B, Vanathi M, Jain S. Graft Versus Host Disease and Dry Eye Disease. In Galor A (eds): Dry Eye Disease. Elsevier. St. Louis, Missouri, USA, 2022: 107-117

Books - Edited

Associate Editor - LASEK, PRK and Excimer Laser stromal surface ablation, 2005, Marcel Dekker, New York, NY

SELECTED ABSTRACTS & PRESENTATIONS

1. Jain S, Azar DT, Chamon W: Intrastromal epithelial migration following deep excimer annular keratectomy. Invest Ophthalmol Vis Sci 1993;34(4):804.
2. Jain S, Hahn TW, Chen W, Stark W, Chen L, Azar DT: Modulation of Corneal Wound Healing Following 193-nm Excimer Laser Keratectomy using Free Radical Scavengers. Invest Ophthalmol Vis Sci 1994;35(4):2015.
3. McCally RL, Connolly PJ, Jain S, Stark WJ, Azar DT: Bimodal Response in Haze Severity Following Phototherapeutic Excimer Laser Ablation of Cornea. Invest Ophthalmol Vis Sci 1994;35(4):1299.
4. Connolly PJ, Jain S, Stark WJ, McCally RL, Azar DT: Modulation of Corneal Wound Healing after Excimer Laser Keratectomy using Intraoperative Mitomycin-C. Invest. Ophthalmol. Vis. Sci. 1994;35(4):2015.
5. Stark WJ, Essepian JP, Rencs E, Jain S, Azar DT: Peripheral Corneal Keratometric Changes Following Photorefractive Keratectomy. Invest Ophthalmol Vis Sci 1994;35(4):2019.
6. Hahn TW, Jain S, Chen W, Stark W, Spatola A , Azar DT: Effect of Metalloproteinase inhibitors on Intrastromal Epithelial Migration following Deep Excimer Annular Keratectomy. Invest Ophthalmol Vis Sci 1994;35(4):2013.
7. Azar DT, Jain S, Smith J, HahnTW, Chen W, McCally RL. Evaluation of the role of DNA damage in producing corneal haze following 193-nm excimer laser keratectomy using photoreactivating light. Invest Ophthalmol Vis Sci 1994;35(4):2013.
8. Jain S, Stark WJ, McCally RL, Azar DT: Modulation of Corneal Wound Healing after Excimer Laser Keratectomy using Intraoperative Mitomycin-C. SPIE 2126-30, 1994.
9. Jain S, Azar DT, Stark WJ. Ocular infections after refractive keratotomy. Invest Ophthalmol Vis Sci. 1995;36(4):S435.
10. Pasterneck, Azar DT, Jain S. Excimer PRK for high myopia. Eye Bank Association of America meeting, San Francisco 1994.

11. Khoury JM, Azar DT, Jain S, Tuli S. Modified Automated Keratomileusis: “Sphero-Refractive Resection” under a hinged flap. *Invest Ophthalmol Vis Sci* 1995;36(4):S579.
12. Pluznik D., Azar D.T., Jain S., Yeh Y.C., Khoury J.M., Tuli S.W. Matrix Metalloproteinase expression and corneal haze measurement after “Excimer Keratomileusis In Situ”. *Invest Ophthalmol Vis Sci* 1995;36(4):S29.
13. Tuli SW, Azar DT, Benson RA, Khoury JM, Jain S. Corneal Haze and Keratometry after RK-PRK Combinations in Rabbits. *Invest Ophthalmol Vis Sci* 1995;36(4): S705.
14. McCally RL, Connolly PJ, Jain S, Green WR, Azar DT, Aslanides IM, Silverman RH. Investigation of haze following PTK using scatterometry, high frequency ultrasound and histology. *Invest Ophthalmol Vis Sci* 1995;36(4):S709.
15. Yeh Y, Azar DT, Jain S. Expression of Matrix Metalloproteinases after excimer laser keratectomy in vivo and in vitro. *Invest Ophthalmol Vis Sci* 1995;36(4):S698.
16. Jain S, Cotliar AM, Gorman D. Association of anterior capsular rim over intraocular lens periphery with posterior capsular opacification after phacoemulsification cataract surgery: A retrospective study. *ASCRS* 1998
17. Azar NF, Jain S, Panthagani P, Gabieson E, Azar DT. Immunohistochemical localization of Matrix Metalloproteinases in human extraocular muscles. *Invest Ophthalmol Vis Sci* 2000;41(4):S8.
18. Jain S, Panthagani P, Kure T, Chang JH, Ye HQ, Azar DT. Immunohistochemical localization of Matrix Metalloproteinases in human corneal disorders. *Invest Ophthalmol Vis Sci* 2000;41(4):S259.
19. Lin HC, Chang JH, Jain S, Kato T, Fukai N, Azar DT. Endostatin localization in cornea. *Invest Ophthalmol Vis Sci* 2000;41(4):S832.
20. Jain S, Azar DT, Ou R. Monovision outcomes in presbyopes after refractive surgery. 104th annual meeting of the American Academy of Ophthalmology, Dallas, TX, 2000.
21. Jain S, Droel JS, Azar DT. Microkeratome-induced epithelial defects during LASIK. *ASCRS* 2000
22. Jain S, Gabison EE, Chang JH, Paton B, Kure T, Savage J, Matrisian LM, Azar DT. Corneal infections in matrix metalloproteinase deficient mice. *Invest Ophthalmol Vis Sci* 2001;42(4):S8.
23. Chang JH, Savage J, Proctor C, Lin HC, Kure T, Gabison EE, Jain S, Azar DT. Characterization of anti-angiogenic precursor collagens, type XV and XVIII in murine cornea: Role of MMP-7. *Invest Ophthalmol Vis Sci* 2001;42(4):S28.
24. Jain S. Dry Eye after Lasik. 4th Annual UIC Cornea Symposium. October 2006.
25. Jain S. Dry Eye Update – Role of Androgen Deficiency. 5th Annual UIC Cornea Symposium. October 2007.
26. De la Cruz J, Jain S, Kojima T, Hallak J, Gibbons J, Chang J-H, and Azar DT. HSP 27 Expression During Corneal Wound Healing. *ARVO Meeting Abstracts* May 10, 2007 48:3492.
27. Wu C-W, Kojima T, Gibbons J, Chang J-H, Jain S, and Azar DT. Characterization of Matrix Metalloproteinase-2, -3, -7, -14 and VEGF Expression in Murine Optic Nerve Injury Models. *ARVO Meeting Abstracts* April 11, 2008 49:4356.
28. Winokur J, Kapoor R, and Jain S. Androgen Profile in Pre-Menopausal Women With Dry Eye Syndrome. *ARVO Meeting Abstracts* April 11, 2008 49:5285.

29. Ellenberg D, Shi J, Qian H, Jain S, Chang J-H, and Azar DT. Restoration of Electroretinogram Activity in Exenterated Swine Eyes Following Ophthalmic Artery Anastomosis. ARVO Meeting Abstracts April 11, 2009 50:1444.
30. Shi J, Wu C-W, Jain S, Chang JH, and Azar DT. Expression of Matrix Metalloproteinase-7 in Murine Optic Nerve Following Transection Injury. ARVO Meeting Abstracts April 11, 2009 50:3195.
31. Bakir M, Namavari A, Sano C, Jain S. Differential Expression of Neurotrophins and Nerve Guidance Proteins in Cultured Corneal Fibroblast and Myofibroblasts. ARVO Meeting Abstracts April 11, 2010 51:6209.
32. Sano C, Namavari A, Bakir M, Jain S. Neurotrophin and Nerve Guidance Protein Presence and Expression in Preserved Donor Cornea. ARVO Meeting Abstracts April 11, 2010 51:6214.
33. Namavari A, Sano C, Bakir M, Jain S. A Murine Model for Investigating Corneal Nerve Regeneration. ARVO Meeting Abstracts April 11, 2010 51:6215.
34. Namavari A, Chaudhary SV, Sarkar J, Yco L, Ke Ma, Jain S. Nerve Regeneration in Murine Cornea. Invest Ophthalmol Vis Sci. 2011;52:ARVO E-Abstract 1972-D953.
35. Tshionyi M, Shay E, Lunde E, Lin A, Han KY, Jain S, Chang JH, Azar D. Prevalence and Distribution of Hemangiogenesis and Lymphangiogenesis in Pathologic Corneas. Invest Ophthalmol Vis Sci. 2011;52:ARVO E-Abstract 2017-D998
36. Chaudhary SV, Namavari A, Sarkar J, Yco L, Bakir M, Jain S. Topical Cyclosporine Effect On Corneal Nerve Regeneration. Invest Ophthalmol Vis Sci. 2011;52:ARVO E-Abstract 2027-D1008.
37. Sarkar J, Namavari A, Chaudhary S, Yco L, Jain S. Corneal Axonopathy is associated with Benzalkonium Chloride (BAK)-induced Dry Eye Disease (DED). Invest Ophthalmol Vis Sci. 2011;52:ARVO E-Abstract 3798-D931.
38. Yco L, Namavari A, Chaudhary SV, Sarkar J, Jain S. Proteomic Analysis Of Murine Corneas During Nerve Regeneration. Invest Ophthalmol Vis Sci. 2011;52:ARVO E-Abstract 2016-D997.
39. Singa RM, Aakalu VK, Lin A, Setabutr P, Jain S. Accessory Lacrimal Tissue Gene Expression IOVS 2011;52:ARVO E-Abstract 5993-A142.
40. Allemann N, Fahd D, Chamon W, Chang J, Jain S. Impediment to Whole Eye Transplantation: An Animal Model and Surgical Techniques. Invest Ophthalmol Vis Sci. 2012;53:ARVO E-Abstract 293-A534.
41. Fahed D, Allemann N, Chamon W, Chang J, Jain S. Effect of Neurotrophins and Growth Factors on RGC5 and an Animal model of Optic Nerve Transection in Thy1-YFP Mice. Invest Ophthalmol Vis Sci. 2012;53:ARVO E-Abstract 329-A570.
42. Sarkar J, Chaudhary S, Namavari A, Ozturk O, Yco L, Sonawane S, Khanolkar V, Batta P, Hallak J, Jain S. Topical Benzalkonium Chloride Treatment Causes Corneal Neurotoxicity. Invest Ophthalmol Vis Sci. 2012;53:ARVO E-Abstract 1806-A269.
43. Namavari A, Sarkar J, Chaudhary S, Ozturk O, Yco L, Sonawane S, Khanolkar V, Katam N, Hallak J, Jain S. Corneal Reinnervation Following Surgical Transection. Invest Ophthalmol Vis Sci. 2012;53:ARVO E-Abstract 1809-A272.
44. Grace E, Sonawane S, Khanolkar V, Katam N, Gaitonde S, Rondelli D, Patel P, Jain S. Histopathologic and Immunophenotypic Characteristics of Conjunctival Biopsies in Chronic Graft Versus Host Disease. Invest Ophthalmol Vis Sci. 2012;53:ARVO E-Abstract 23180-A335.

45. Hou J, Singa R, Green S, Jain S, Aakalu V, Setabutr P. Characterization of Adrenergic Receptor Subtype Gene Expression in Human Müller's Muscle using Laser-Capture Microdissection and Quantitative Polymerase Chain Reaction. *Invest Ophthalmol Vis Sci.* 2012;53:ARVO E-Abstract 6478-D768.
46. Chamon W, Ozturk O, Fahd D, Allemann N, De la Cruz J, Cortina M, Foster C, Azard D, Jain S. A New Approach to Experimentally Determine Human Corneal Biomechanical Characteristics Using OCT Applied to an Anisotropic finite Element Model. *Invest Ophthalmol Vis Sci.* 2012;53:ARVO E-Abstract 6894.
47. Tu E, Jain S. Topical Linezolid 0.2% for the Treatment of Gram Positive Bacterial Keratitis. *Invest Ophthalmol Vis Sci.* 2013;54:ARVO E-Abstract 2899.
48. Hallak J, Jassim S, Jain S. Symptom Burden of Patients with Dry Eye Disease: A Four Domain Analysis. *Invest Ophthalmol Vis Sci.* 2013;54:ARVO E-Abstract 960-B0265.
49. Gandhi S, Sarkar J, Chamon W, Chaudhary S, Tibrewal S, Byun Y, Jassim S, Sharma A, Mohindra N, Jain S. CD11b+GR1+ Myeloid Cells Promote Trigeminal Ganglion Neurite Growth: Implications for Corneal Nerve Regeneration. *Invest Ophthalmol Vis Sci.* 2013;54:ARVO E-Abstract 3884.
50. Jassim S, Namavari A, Chaudhary S, Tibrewal S, Byun Y, Gandhi S, Mohindra N, Lee H, Sarkar J, Jain S. Semaphorin 7a actions on nerves and myeloid cells in the cornea promote nerve regeneration, thus linking neuronal and myeloid systems. *Invest Ophthalmol Vis Sci.* 2013;54:ARVO E-Abstract 3885.
51. Byun Y, Yco L, Shaheen B, Sharma A, Chaudhary S, Gandhi S, Jassim S, Sarkar J, Tibrewal S, Jain S. Reprogramming Genes Are Expressed during Spheroidal Culture of Corneal Stromal Cells. *Invest Ophthalmol Vis Sci.* 2013;54:ARVO E-Abstract 5251.
52. Jassim S, Lin A, Setabutr P, Jaboori A, Jain S, Aakalu V. A Tissue Microarray Analysis of Stem cell markers positive cells in Human Accessory Lacrimal Glands (ALG) from Muller Muscle Conjunctival Resection (MMCR) Specimens. *Invest Ophthalmol Vis Sci.* 2014;55:ARVO E-Abstract 3316-A0276.
53. Aakalu V, Jassim S, Lin A, Jaboori A, Setabutr P, Jain S. Accessory Lacrimal Gland (ALG) Gene Expression from Human Muller Muscle Conjunctival Resection (MMCR) Specimens Obtained via Laser Capture Microdissection (LCM). *Invest Ophthalmol Vis Sci.* 2014;55:ARVO E-Abstract 3115-A0285.
54. Jain S. Neuronal and Immune Interactions during Corneal Nerve Regeneration. *ARVO;* 2014 May 05; Abstract 1298; Orlando, FL.
55. Sarkar J, Kim E, Chaudhary S, Byun Y, Tibrewal S, Ivanir Y, Wahood R, Mihindra N, Leonard K, Jain S. Neuroregenerative and Immunosuppressive actions of Myeloid- derived Suppressor Cells (MDSCs) in the Cornea. *Invest Ophthalmol Vis Sci.* 2014;55:ARVO E-Abstract 4271-A0346.
56. Ivanir Y, Tibrewal A, Sarkar J, Kim E, Jassim S, Sonawane S, Byun Y, Wahood R, Schneider L, Jain S. Neutrophil Extracellular Traps accumulate on ocular surface of Dry Eye Disease patients: Potential for a new therapeutic strategy using DNase I eye drops. *Invest Ophthalmol Vis Sci.* 2014;55:ARVO E-Abstract 3685-A0199.
57. Tibrewal S, Sarkar J, Jassim S, Ivanir Y, Kim E, Byun Y, Wahood R, Chaudhary S, Leonard K, Jain S. Non-self extracellular DNA (eDNA) may potentiate inflammation and severity of dry eyes in patients with chronic ocular Graft- Versus- Host Disease (GVHD). *Invest Ophthalmol Vis Sci.* 2014;55:ARVO E-Abstract 2 008-B0307.

58. Byun Y, Kim E, Tibrewal S, Ivanir Y, Wahood R, Leonard K, Jassim S, Chaudhary S, Sarkar J, Jain S. Stemness Transcription Factor Nanog is Expressed During Spheroid Culture of Corneal Stromal Cells. *Invest Ophthalmol Vis Sci.* 2014;55:ARVO E-Abstract 5133-A0354.
59. Hallak J, Gao X, Jain S. The brain-derived neurotrophic factor rs6265 (Val66Met) polymorphism and dry eye disease: Potential association with stress-related disorders (depression/anxiety). *Invest Ophthalmol Vis Sci.* 2014;55:ARVO E-Abstract 3687-A0201.
60. Hallak J, Tibrewal S, Jain S. Depressive Symptoms in Dry Eye Disease Patients: A Case-Control Study using the Beck Depression Inventory. *Invest Ophthalmol Vis Sci.* 2015;56:ARVO E-Abstract 312-C0197.
61. Shah D, Ali M, Jassim Jaboori A, Jain S, Aakalu V. Histatin-1 is a Marker for Human Lacrimal Epithelium. *Invest Ophthalmol Vis Sci.* 2015;56:ARVO E-Abstract 2488-D0092.
62. Ali M, Shah D, Jassim Jaboori A, Jassim S, Jain S, Setabutr P, Aakalu V. Stem Cell Marker Expression in Accessory Lacrimal Gland as a Function of Patient Characteristics. *Invest Ophthalmol Vis Sci.* 2015;56:ARVO E-Abstract 2492-D0096.
63. Kim E, Byun Y, Tibrewal S, Sarkar J, Ivanir Y, Pradeep A, Jun W, Jain S. Forced Differentiation of Corneal Stromal Cell Spheroids Yields Cells with Tissue- Resident Keratocyte Characteristics. *Invest Ophthalmol Vis Sci.* 2015;56:ARVO E-Abstract 4916-A0190.
64. Jain S. Neutrophil Extracellular Traps in Chronic Ocular GVHD: Diagnostic and Therapeutic implications. *Invest Ophthalmol Vis Sci.* 2016;57:ARVO E-Abstract 959.
65. Sarkar J, Kim E, Varma D, Milani B, Jain S. Regeneration and Healing of Corneal Stromal Nerve Trunks after In Situ Laser Transection. *Invest Ophthalmol Vis Sci.* 2016;57:ARVO E-Abstract 4916-A0132.
66. Varma D, Kim E, Raju I, Liu Z, Pradeep A, Mun C, Sarkar J, Jain S. Sema7a peptide that spans RTS disintegrin motif binds alpha1beta1 integrin and affects neuronal adherence. *Invest Ophthalmol Vis Sci.* 2016;57:ARVO E-Abstract 4915-A0131.
67. Kim E, Varma D, Raju I, Liu Z, Pradeep A, Mun C, Sarkar J, Jain S. Semaphorin 7a is differentially expressed in myeloid-derived suppressor cells (MDSCs) in naïve and inflammatory conditions. *Invest Ophthalmol Vis Sci.* 2016;57:ARVO E-Abstract 4919-A0135.
68. Milani B, Raju I, Varma D, Kim E, Liu Z, Hallak J, Pradeep A, Mun C, Jain S. A Novel Assay For Detecting Serum Proteins In Tear Fluid: Diagnostic Implications In Dry Eye Associated With Systemic Immunological Diseases. *Invest Ophthalmol Vis Sci.* 2016;57:ARVO E-Abstract 5684-A0030.
69. Wu PY, An S, Lee H, Varma D, Kim E, Liu Z, Sarkar J, Pradeep A, Ahn A, Mun C, Lopez A, Raju I, Jain S. A Sema7a derived RTS-disintegrin peptide binds to integrin alpha1beta1 and promotes migration of myeloid-derived suppressor cells (MDSCs). *Invest Ophthalmol Vis Sci.* 2017;58:ARVO E-Abstract 152-A0342.
70. An S, Kim E, Varma D, Raju I, Pradeep A, Mun C, Ahn A, Lopez A, Liu Z, Jain S. Semaphorin 7a is differentially expressed in myeloid-derived suppressor cells (MDSCs) under naïve and inflammatory conditions. *Invest Ophthalmol Vis Sci.* 2017;58:ARVO E-Abstract 153-A0343.
71. Sinha S, Raju I, An S, Pradeep A, Surenkhoo B, D'costa A, Wu P, Gulati S, Lopez A, Mun C, Ahn A, Jain S. Neutrophil Extracellular Traps (NETs) delay Epithelial Wound Healing

- in-vitro: Implications in chronic Ocular GVHD. Invest Ophthalmol Vis Sci. 2017;58:ARVO E-Abstract 160-A0350.
72. Milani B, Jain S. Subbasal Corneal Nerves in Acute Desiccating Stress Model of Murine Dry Eye. Invest Ophthalmol Vis Sci. 2017;58: ARVO E-Abstract 1422 - B0072.
 73. Baker J, Jain S, Nathan J, Hallak J. Prevalence of Dry Eye Symptoms in Patients Undergoing Treatment at a University-Based Psychiatric Mood and Anxiety Clinic. Invest Ophthalmol Vis Sci. 2017;58: ARVO E-Abstract 2682 - A0272.
 74. Hallak J, Gao RX, Jain S. Patients with Dry Eye Disease and Depression: A Potential Role for VAL66MET Single Nucleotide Polymorphism on Treatment Response. Invest Ophthalmol Vis Sci. 2017;58: ARVO E-Abstract 2683 - A0273.
 75. Raju I, An S, Varma D, Pradeep A, Surenkhuu B, Lopez A, D'costa A, Mun C, Ahn A, Sinha S, Gulati S, Jain S. Tear fluid neutrophils and NETs: Implications in the pathogenesis of ocular graft vs host disease. Invest Ophthalmol Vis Sci. 2017;58: ARVO E-Abstract 3934 - A0173.
 76. Jose J, Cortina M, de la Cruz J, Djalilian A, Jain S, Sugar J, Tu EY, Lobo AM. Visual outcomes and corneal surgery in patients diagnosed with herpetic stromal keratitis based on race. Invest Ophthalmol Vis Sci. 2017;58: ARVO E-Abstract 4791 - A0074
 77. Jain S, An S, Raju I, Surenkhuu B, Sinha S, Rondelli D, Mun C. Neutrophil Extracellular Traps (NETs) in Patients with Dry Eye Disease Secondary to ocular Graft-vs-Host-Disease (oGVHD): Pathological Consequences and Therapeutic Implications. Invest Ophthalmol Vis Sci. 2018;59:ARVO E-Abstract 4873-C0318.
 78. Mun C, An S, Raju I, Surenkhuu B, Sinha S, Wu PY, Pradeep A, Ahn A, Kwon J, Lopez A, Jain S. Oncostatin M (OSM) Contributes to Corneal Epitheliopathy in Tear Deficient Dry Eye Disease due to Chronic ocular Graft-Vs-Host Disease (oGVHD). Invest Ophthalmol Vis Sci. 2018;59:ARVO E-Abstract 3292 - C0086.
 79. Arumugham R, Somasekhar G, Upadhyay K, Kalesnykas G, Kaja S, Jain S. Pre-clinical efficacy of OCU300 nanoemulsion for the treatment of ocular graft versus host disease (oGVHD). Invest Ophthalmol Vis Sci. 2018;59:ARVO E-Abstract 3287 - C0081.
 80. An S, Raju I, Surenkhuu B, Sinha S, Wu PY, Ahn A, Pradeep A, Kwon J, Lopez A, Mun C, Jain S. Sub-Anticoagulant Dose Heparin is a Potential Therapy for Tear Deficient Dry Eye Disease in patients with ocular Graft-Vs-Host Disease (oGVHD). Invest Ophthalmol Vis Sci. 2018;59: ARVO E-Abstract 3293 - C0087.
 81. Kwon J, An S, Raju I, Surenkhuu B, Pradeep A, Mun C, Atassi N, Jain S. Sub-Anticoagulant Dose Heparin Dismantles Neutrophil Extracellular Traps (NETs): Therapeutic Implementations for Dry Eye Disease (DED). Invest Ophthalmol Vis Sci. 2019;60: ARVO E-Abstract 309 - B0448.
 82. Buwick M, Kanu L, Surenkhuu B, Mun C, Atassi N, Shukla S, Shah H, Mun J, Jain S. Superior limbic keratoconjunctivitis: An analysis of clinical and pathophysiological features and therapeutic outcomes. Invest Ophthalmol Vis Sci. 2019;60: ARVO E-Abstract 2774 - B0524.
 83. Mun C, Tibrewal S, Ahn A, Lopez A, Atassi N, Surenkhuu B, Buwick M, Shukla S, Shah H, Mun J, Pradeep A, Raju I, Jain S. Recombinant Deoxyribonuclease (DNase) Eye Drops Use in Patients with Dry Eye Disease: Results of a Randomized Clinical Trial. Invest Ophthalmol Vis Sci. 2019;60: ARVO E-Abstract 6759 - B0283.

84. Surenkhuu B, Raju I, An S, Kwon J, Pradeep A, Atassi N, Mun C, Jain S. LIGHT Protein is a Potential Biomarker for Ocular Graft-VS-Host Disease (oGVHD). Invest Ophthalmol Vis Sci. 2019;60: ARVO E-Abstract 6764 - B0288.
85. Jain S, An S, Kwon J, Surenkhuu B, Raju I, Atassi N, Pradeep A, Mun C. Anti-Citrullinated Protein Antibodies (ACPA) are Present in Tear Fluid of Dry Eye Disease (DED) Patients: Diagnostic and Therapeutic Implications. Invest Ophthalmol Vis Sci. 2019;60: ARVO E-Abstract 6786 - B0310.
86. Son K, Kalmodia S, Cao D, Lee B, Shah D, Ali M, Balasubramaniam A, Jain S, Aakalu V. Histatin-1 is present in normal human tears and reduced in aqueous deficient dry eye disease. Invest Ophthalmol Vis Sci. 2019;60: ARVO E-Abstract 6792 - B0316.
87. Dhall N, Kwon J, An S, Mun J, Illangovan R, Surenkhuu B, Berek C, Mun C, Jain S. Citrullinated protein and Anti-Citrullinated Protein Antibodies (ACPAs) are present in Tear fluid of Dry Eye Disease (DED) patients – Pathophysiological Implications. Invest Ophthalmol Vis Sci. 2020;61: ARVO E-Abstract 323 - A0143.
88. Atassi N, Surenkhuu B, Mun J, Berek C, Ahn A, Dhall N, Kim C, Hadi SA, Pradeep A, Mun C, Jain S. Ocular Graft vs Host Disease (oGVHD) After Allogenic Hematopoietic Stem Cell Transplant (allo-HSCT): A 2 Year Longitudinal, Observational Study. Invest. Ophthalmol. Vis. Sci. 2021;62(8):1244.
89. Sunshine S, Katz E, Mun C, Mun J, Berek C, Pradeep A, Surenkhuu B, Jain S. Combinatorial Therapy with Immunosuppressive, Immunomodulatory and Tear Substitute Eyedrops (‘Triple Play’) in Recalcitrant Immunological Ocular Surface Diseases. Invest Ophthalmol Vis Sci. 2020;62: ARVO Abstract # 3542566.
90. Surenkhuu B, Mun C, Atassi N, Dhall N, Mun J, Berek C, Kim C, Akbar Sarwar M, Pradeep A, Jain S. Recombinant Deoxyribonuclease I (DNase) Eye Drops for Ocular Graft-Versus-Host Disease (oGVHD): Results of a Randomized Clinical Trial. Invest. Ophthalmol. Vis. Sci. 2021;62(8):1276.

INVITED TALKS & PRESENTATIONS

1. LASIK Controversies. ASCRS 2000
2. Harvard intensive review of ophthalmology, Optics course, Boston, MA, 2001
3. Harvard intensive review of ophthalmology, Corneal anatomy, dystrophies, degenerations and infections course, Boston, MA, 2001
4. The MEEI fellows course, Management of astigmatism after corneal trauma, Boston, MA 2001.
5. American Academy of Ophthalmology, Deep and posterior lamellar keratoplasty course, 2001.
6. American Academy of Ophthalmology, Excimer laser phototherapeutic keratectomy for anterior corneal pathology, (annually from 1994 to 2014).
7. Lancaster Course in Ophthalmology, Corneal Dystrophies and Degenerations, Waterville, Maine (annually from 2003 to 2021).
8. American Society of Cataract and Refractive Surgery, Illinois Eye and Ear pearls for the management of complex cornea and refractive surgery cases, (annually from 2006 to 2011).

9. American Academy of Ophthalmology. When All else Fails, managing complex corneal diseases (annually from 2007 to 2011).
10. International Symposium on Ocular Pharmacology and Therapeutics (ISOPT) 2013 Paris Meeting
11. Harvard Medical School Cornea Center of Excellence, International Workshop, Boston, MA, October 2013
12. Vision Series Lecture, Department of Ophthalmology, University of Pittsburg, March 2014
13. Northwestern University, Section of Hematology/Oncology, Chicago, July 2014
14. International Society for Eye Research (ISER), "Corneal Innervation: Lessons from Basic Science" Session, July 2014
15. Keynote Address, XXI international Course of Cornea and Refractive Surgery, Cancun, Mexico, 2015
16. University of Chicago, Division of Hematology/Oncology, November 2015
17. Keynote Address, Tear Film and Ocular Surface Society (TFOS), Montpellier, France, September 2016
18. ARVO Special Interest Group (SIG) meeting on ocular GVHD, Seattle, May 2016
19. Hakone Dry Eye Club, Japan, May 2016
20. Chicago Medical Society's 69th Annual Midwest Clinical Conference, Chicago, May 2016
21. MD Anderson Cancer Center, Houston, TX, November 2016
22. Grand Rounds Lecture, Penn State Health Eye Center, Hershey, PA, March 2017
23. ARVO Special Interest Group (SIG) meeting on ocular GVHD, Seattle, WA. May 2017
24. The 7th International Chronic Ocular Graft-vs-Host Disease Consensus Meeting. Ongoing Clinical Trials on Ocular GVHD, Honolulu, HI. April 2018.
25. 7th Annual National GvHD Health Symposium. Translational and Clinical Research in Chronic Ocular GVHD. Columbus, OH. October 2017.
26. The Chronic GVHD Meeting: Intersecting Aspects in Systemic and Ocular Disease. Neutrophil and NETS in Chronic Ocular GVHD. Chicago, IL. October 2017.
27. NIH Chronic GVHD Study Group Intramural Retreat. Neutrophils and NETs in Chronic Ocular GVHD. Bethesda, MD. February 2018.
28. UChicago Medicine Transplant Research Meeting. Ocular GVHD: Current Management. Chicago, IL. University of Chicago. July 2018
29. ISER XXIII Biennial Meeting of the International Society for Eye Research. Sub-anticoagulant Dose Heparin Is a Potential Therapy for Inflammation and Ocular Surface Disease in Dry Eye and oGVHD. Belfast, UK, September 2018
30. Chicago Subspecialty Lecture Series: Clinical and Translational Aspects in ocular GVHD. Chicago, IL. Loyola University of Chicago. November 2018.
31. ARVO Special Interest Group (SIG) meeting on Tear Biomarkers of Ocular Surface Diseases in the Clinic, Vancouver, Canada. May 2019
32. International Ocular Surface Society (IOSS) 22nd Annual Meeting. Neutrophil extracellular traps (NETs) and NET-associated proteins in the pathogenesis of ocular graft-versus-host-disease (oGVHD). Vancouver, Canada. April 27, 2019.
33. BMT Infonet National GVHD Patient Summit. Your Eyes and Chronic GVHD. Chicago, IL October 12, 2019.
34. The Chronic GVHD Meeting: Intersecting Aspects in Systemic and Ocular Disease. Neutrophil and NETS in Chronic Ocular GVHD. Chicago, IL. October 2019.
35. 2020 UIC Cornea Symposium. Immunotherapy in dry eye. Chicago, IL. March 7, 2020.

36. BMT Infonet ‘Ask the Graft-verses-Host Disease Experts’ Webinar. February 13th, 2020.
37. Webinar Presentation ‘Immunotherapy for Ocular Surface Diseases’ Grupos de Investigación con Enfoque Estratégico (GIEE). May 21, 2020.
38. ARVO Special Interest Group (SIG): New-Perspective: Ocular Graft-versus-Host Disease is More Than Just Another Form of Dry-eye Disease. Webinar. May 1, 2021.
39. Translational Oncology (TO) Program Annual Retreat: Translational Oncology Aspects in Ophthalmology. Chicago, IL. Webinar August 12, 2021.
40. ARVO CRC Webinar Workshop Meeting “Preparing for Partnering: Core Competencies”: Regulatory/Clinical Aspects. Webinar. August 18, 2021.
41. AAMDSIF “Ocular GVHD – Diagnosis and Treatment” Webinar. March 15, 2022.

TRAINEES (Faculty Development)

2014-2019 **Vinay Aakalu, MD** (Assistant Professor, UIC Dept. Of Ophthalmology)
 Primary Mentor on Mentored Clinical Scientist Research Career Development Award (NEI K08EY024339).

TRAINEES (Research)

Postdoctoral Fellows:

2008-10 **Jae-Young Kim, MD**
 2009-13 **Shweta Chaudhary, MD** (Resident Ophthalmology at Cook County. Chicago, IL)
 2009-10 **Cecile Sano, PhD**
 2009-12 **Abed Namavari, MD**(Ophthalmologist at Lugene Eye Institute. Glendale, CA)
 2010-12 **Lisette Yco, MS**
 2011-12 **Neelima Katam, MD** (Pathology Core Facility: Research Data Analyst at Robert H. Lurie Comprehensive Cancer Center of Northwestern University)
 2011-13 **Vishakha Kumar, MD, MBA** (Manager, Quality Implementation Programs for the Society of Critical Care Medicine. Chicago, IL)
 2011-13 **Snehal Sonawane, MD** (Fellow Gynecologic and Breast Pathology at The University of Chicago. Chicago, IL)
 2011-13 **Sonal Gandhi, MD** (Internal Medicine at Greater Baltimore Medical Center. Baltimore, Maryland)
 2012-13 **Sarmad H. Jassim, MD** (Fellow Pathology at University of Michigan. Ann Arbor, MI)
 2012-13 **Okun Ozurk, MD** (Turkey)
 2012-14 **Young-Soo Byun, MD, PhD** (Clinical Assistant Professor at Seoul St. Mary Hospital Catholic University of Korea)
 2012-15 **Sapna Tibrewal, MD**(Ophthalmologist at Drishti Kidz Eye Care. El Paso, TX)
 2013-15 **Yair Ivanir, MD** (Neuro-Ophthalmology Fellow at University of Michigan Kellogg Eye Center. Ann Arbor, MI)
 2010-15 **Joy Sarkar, PhD** (Research Assistant Professor at UIC Department of Ophthalmology. Chicago, IL)

- 2017-2018 **Andrea Ortega**, MD (Resident Ophthalmology at UIC Department of Ophthalmology. Chicago, IL)
- 2018 **Denise Loya-García**, MD (Ophthalmologist at Tecnológico de Monterrey. Monterrey, Mexico)
- 2018-2019 **Carmen Somavilla**, MD (Research Fellowship at UIC Department of Ophthalmology. Chicago, IL)
- 2020-2022 **Daniela Roca**, MD (Research Fellowship at UIC Department of Ophthalmology. Chicago, IL)

Pre-doctoral Students

- 2010-10 **Kunal Patel**, MD (Department of Ophthalmology, Eugene and Marilyn Glick Eye Institute at Indiana University. Indianapolis, IN)
- 2011-2013 **Brittany Simmons**, MD (Resident at Flaum Eye Institute, University of Rochester Medical Center. New York, NY). Served as her mentor in the James Scholar for Independent Study Program (JS/ISP) at UIC COM.
- 2010-2011 **May Bakir**, MD (Cardiologist at Mount Sinai. New York, NY)
- 2018-2019 **Hirali Shah** (Candidate for Doctor of Osteopathic Medicine at Midwestern University Chicago College of Osteopathic Medicine. Downers Grove, IL)
- 2018-2019 **Morgan M. Buwick** (Candidate for Doctor of Medicine at University of Illinois College of Medicine. Chicago, IL)
- 2019-2022 **Zobia Chunara** (Candidate for Doctor of Medicine at University of Illinois College of Medicine. Chicago, IL). Served as her mentor in the COM Clinical Immersion Program (CIP) and UIC COM Innovation Medicine Program (IMED).
- 2019-2022 **Abdul Zakkar** (Candidate for Doctor of Medicine at University of Illinois College of Medicine. Chicago, IL). Served as his mentor in the COM Clinical Immersion Program (CIP) and UIC COM Innovation Medicine Program (IMED).
- 2019-2020 **Nikhil Dhall** (Candidate for Doctor of Medicine at University of Missouri-Kansas City School of Medicine. Kansas City, MO)
- 2020-2021 **Nour Atassi** (Candidate for Doctor of Medicine at NYIT College of Osteopathic Medicine. Jonesboro, AR)
- 2020-2021 **Sarah Abdel-Hadi** (Candidate for Doctor of Medicine at Rush Medical University. Chicago, IL)
- 2020-2022 **Eitan Katz** (Resident in Ophthalmology, University of Illinois College of Medicine. Chicago, IL). Served as his faculty career advisor, as part of a program that was initiated by Office of Student Affairs (OSA).
- 2022-Present **Alexandria Bernal** (Candidate for Doctor of Medicine at University of Illinois College of Medicine at Chicago. Chicago, IL)
- 2022-Present **Neil Sundaram** (Innovation Medical Student, Candidate for Doctor of Medicine at University of Illinois College of Medicine at Chicago. Chicago, IL)
- 2022-Present **Liz Troy** (Innovation Medical Student, Candidate for Doctor of Medicine at University of Illinois College of Medicine at Chicago. Chicago, IL)

TRAINEES (Clinical)

Residents: 60 residents from 2006 to present

Clinical Fellows:

2007-8 **Janet Lee**, MD (Corneal and external diseases of the eye at Wheaton Eye Clinic Illinois)

2007-8 **Jules Winokur**, MD (Assistant Professor, Hofstra Northwell School of Medicine. New York, NY)

2008-9 **Kristina Thomas**, MD (Cornea & External Disease. Pittsburgh, PA)

2008-9 **Soledad Cortina**, MD (Associate Professor of Ophthalmology. University of Illinois. Chicago, IL)

2009-10 **Michael Weisberg**, MD

2009-10 **Isaac Porter**, MD (Ophthalmologist in Raleigh, North Carolina)

2010-11 **Saaba Elderkin**, MD (Advocate Good Samaritan Hospital, Edward Hospital, and Northwestern Medicine Central DuPage Hospital)

2010-11 **Krishna Sanka**, MD (Eye Centers of Racine and Kenosha)

2011-12 **Roshni Vasiawala**, MD (Ophthalmologist at Advocate Health Care. Chicago, IL)

2011-12 **Priti Bata**, MD (Assistant Professor at New York Eye & Ear Infirmary)

2012-13 **Scott Kelly**, MD (Ophthalmologist at University Medical Center at Brackenridge)

2012-13 **Samuel Lee**, MD (Ophthalmologist at Sacramento Eye Consultants. Sacramento, CA)

2013-14 **Joshua Hu**, MD

2013-14 **Lauren Schreden**, MD (Ophthalmologist in Stamford Ophthalmology, Connecticut)

2014-15 **Kimberly Hsu**, MD (Ophthalmologist in Weymouth, Massachusetts)

2014-15 **Samantha Williamson**, MD (Ophthalmologist at Kaiser Permanente. Woodlawn, MD)

2015-16 **Peter Wu**, MD (Ophthalmologist at Kaiser Permanente. Sacramento, CA)

2015-16 **Claire Kelliher**, MD (Ophthalmologist at Krieger Eye Institute. Philadelphia, CA)

2016-17 **Praneetha Thulasi**, MD (Assistant Professor, Cornea Service, Emory University. Atlanta, GA)

2016-17 **Debora Garcia-Zalisnak**, MD (Eye Institute at Boswell. Sun City, AZ)

2017-18 **Salima Hassanaly**, MD (Ophthalmologist at Boston Laser. Boston, MA)

2017-18 **Kai Kang**, MD (Wheaton Eye Clinic. Wheaton, IL)

2018-19 **Jennifer Park**, MD (Assistant Professor, Cornea Service. SUNY University. Brooklyn, NY)

2018-19 **Julie Goldman**, MD (Ophthalmologist at Chicago Glaucoma Consultants. Chicago, IL)

2019-20 **Taylor Starnes**, MD, PhD (Assistant Professor, Cornea Service. Loyola University at Chicago. Chicago, IL)

2019-20 **Sarah Sunshine**, MD (Assistant Professor, Cornea Service. University of Maryland School of Medicine. Baltimore, MD)

2020-21 **Robert Bjerregaard**, MD (Eye Physician Associates, Milwaukee, WI)

2020-21 **Ahmar Sajjad**, MD (Eye Surgeons of Indiana, Indianapolis, IN)

2021-22 **Sherief Raouf**, MD (Cornea Fellow, Cornea Service. University of Illinois at Chicago. Chicago, IL)

- 2021-22 **Karen Hu, MD** (Cornea Fellow, Cornea Service. University of Illinois at Chicago. Chicago, IL)
- 2022-23 **Natalya Antonova, MD** (Cornea Fellow, Cornea Service. University of Illinois at Chicago. Chicago, IL)

UNDERGRADUATES

- 2012 **Abhishek Sharma** (Graduated Mathematics at Brown University)
- 2013 **Valeria Hernandez**
- 2015-2017 **Azucena Lopez** (Graduated Bachelor's degree in Biology/Psychology at University of Illinois in Chicago. Chicago, IL)
- 2017-2018 **Sana Yousaf** (Candidate for Bachelor's degree in Biological Sciences at University of Illinois at Chicago. Chicago, IL)
- 2017 **Paul Won** (Candidate for Bachelor's degree in Music and Biology at Northwestern University. Evanston, IL)
- 2018 **Katie Ko** (High School Student)
- 2018-2021 **Christian Kim** (High School Student, James B. Conant High School)
- 2018-Present **Jessica Mun** (Candidate for Bachelor's degree at University of Illinois. Chicago, IL)
- 2018-2020 **Shivali Shukla** (Candidate for Bachelor's degree in Interdisciplinary Health Sciences at University of Illinois Urbana-Champaign. Urbana, IL)
- 2018-2020 **Anis Barmada** (Candidate for Bachelor's degree in Biological Sciences at University of Illinois. Chicago, IL)
- 2019-2020 **Alisa Cheriachangel** (Candidate for Bachelor's degree at University of Illinois. Chicago, IL)
- 2019-2020 **Farhin Patel** (Candidate for Bachelor's degree in Bioengineering at University of Illinois. Chicago, IL)
- 2019-2020 **Naima Muckom** (Candidate for Bachelor's degree in Bioengineering at University of Illinois. Chicago, IL)
- 2019-2020 **Suha Fatima Mohiuddin** (Candidate for Bachelor's degree in Bioengineering at University of Illinois. Chicago, IL)
- 2019-2020 **Ameera W Lodhi** (Candidate for Bachelor's degree in Bioengineering at University of Illinois. Chicago, IL)
- 2019-2020 **Tala Beilani** (Candidate for Bachelor's degree in Health Science at Benedictine University. Lisle, IL)
- 2020-Present **Tanya Sheth** (Candidate for Bachelor's degree / Doctor of Osteopathic Medicine Dual Program at Nova Southeastern University. Davie, FL)
- 2021-Present **Christian Kim** (Candidate for Bachelor's degree at University of Illinois at Chicago. Chicago, IL)
- 5/22-8/22 **Priyanka Dondeti** (Candidate for Bachelor's degree at Barnard College of Columbia University. New York, NY)
- 2022- Present **Jennifer Meza** (Candidate for Bachelor's degree at University of Illinois at Chicago. Chicago, IL)
- 2022- Present **Julie Gawenda** (Candidate for Bachelor's degree at University of Illinois at Chicago. Chicago, IL)

TEACHING ACTIVITIES

1. Lectures to the Residents: Didactic lectures. 3-4 one hour lectures per year (1 Corneal Dystrophies, 2. Corneal Degenerations, 3. Chemical injuries to cornea, 4. Dry Eye Disease. 2007-2016.
2. Faculty at Phacoemulsification Course for residents 2008-2016
3. Grand Rounds: Moderator: 1-2 times a year
4. Staffing Cataract Surgery
5. Research Advisor – First year residents