

**CURRICULUM VITAE**  
**BENJAMIN Y. XU, MD, PhD**  
**FEBRUARY 7, 2023**

**PERSONAL INFORMATION:**

**Work**

USC Roski Eye Institute  
1450 San Pablo Street, Suite 4700  
Los Angeles, CA 90033

**EDUCATION AND PROFESSIONAL APPOINTMENTS**

**EDUCATION:**

<i>Year</i>	<i>Degree, Field, Institution, City</i>
2004	B.S., Biomedical Engineering, Yale University, New Haven, CT
2010	Ph.D., Neuroscience, Columbia University, New York, NY
2012	M.D., Medicine, Columbia University, New York, NY

**POST-GRADUATE TRAINING:**

<i>Year</i>	<i>Training Type, Field, Mentor, Department, Institution, City</i>
2012-2013	Internship, Internal Medicine, St. Luke's Roosevelt Hospital Center
2013-2016	Residency, Ophthalmology, Department of Ophthalmology, University of Southern California LAC+USC Medical Center, Los Angeles, CA
2016-2017	Fellowship, Glaucoma, Robert N. Weinreb, Department of Ophthalmology, University of California San Diego, San Diego, CA

**ACADEMIC APPOINTMENTS:**

<i>Year</i>	<i>Appointment</i>	<i>Department, Institution, City, Country</i>
2017 – Present	Assistant Professor of Clinical Ophthalmology	Department of Ophthalmology University of Southern California Los Angeles, CA, USA

**CLINICAL APPOINTMENTS:**

<i>Year</i>	<i>Appointment</i>	<i>Department, Institution, City, Country</i>
2017 – Present	Glaucoma Specialist, Ophthalmologist	Department of Ophthalmology University of Southern California Los Angeles, CA, USA

**ADMINISTRATIVE APPOINTMENTS:**

<i>Year</i>	<i>Description</i>	<i>Institution, City, State, Country</i>
2017 – 2021	Assistant Residency Program Director	LAC+USC Medical Center / Keck School of Medicine, Los Angeles, CA
2017 – Present	Director, USC Roski Ophthalmology Inpatient Consult Service	Keck School of Medicine, Los Angeles, CA
2021 – Present	Interim Chief, Glaucoma Division	Keck School of Medicine, Los Angeles, CA

**HONORS, GRANTS, AWARDS:**

<i>Year</i>	<i>Description</i>	<i>Awarding agency, address, city</i>
2004-2008	NIH Medical Scientist Training Program Training Grant	NIH Medical Scientist Training Program, Bethesda, MD

2008	MD/PhD Student Research Symposium Award	Columbia University, New York, NY
2008-2009	Columbia University Vision Science NEI Training Grant	Columbia University, New York, NY
2009	MD/PhD Student Research Symposium Award	Columbia University, New York, NY
2011	Dr. Alfred P. Steiner Dean's Day Research Award	Columbia University, New York, NY
2015	USC Ophthalmology Resident Academic Achievement Award	LAC+USC Medical Center, Los Angeles, CA
2015	ARVO Annual Meeting Travel Grant Award	Association for Research in Vision and Ophthalmology, Rockville, MD
2016	USC Ophthalmology Resident Teaching Award – Resident	LAC+USC Medical Center, Los Angeles, CA
2017	USC Dean's Pilot Research Award	University of Southern California, Los Angeles, CA
2018	ARVO Annual Meeting Travel Grant Award	Association for Research in Vision and Ophthalmology, Rockville, MD
2018-2019	Mentoring for Advancement of Physician-Scientists (MAPS) Award	American Glaucoma Society, San Francisco, CA
2019-2024	K23 Mentored Patient-Oriented Research Career Development Award	National Institutes of Health, Bethesda, MD
2020-2021	SC-CTSI Clinical and Community Research Award	University of Southern California, Los Angeles, CA
2020-2021	Young Clinician Scientist Award	American Glaucoma Society, San Francisco, CA
2020-2021	Grant-in-Aid Research Award	Fight for Sight
2021-2023	IRIS Registry Initiative Award	American Glaucoma Society, San Francisco, CA
2021	USC Ophthalmology Resident Teaching Award – Attending	LAC+USC Medical Center, Los Angeles, CA
2023-2025	SC-CTSI DHS-USC Safety Net Innovation Award	University of Southern California, Los Angeles, CA

**PROFESSIONAL SOCIETY MEMBERSHIPS:**

<i>Year</i>	<i>Society</i>
2014 – Present	Association for Research in Vision and Ophthalmology
2013 – Present	American Academy of Ophthalmology
2013 – 2016	Los Angeles Society for Ophthalmology
2014 – Present	American Glaucoma Society

**PROFESSIONAL SOCIETY COMMITTEES:**

<i>Year</i>	<i>Committee, Society</i>
2017 – Present	Patient Care Committee, American Glaucoma Society
2019 – Present	Committee on Aging, American Academy of Ophthalmology
2021 – Present	Associate Advisory Board, World Glaucoma Association

**PUBLICATIONS:**

**REFEREED JOURNAL ARTICLES:**

1. Xu Y, Wang X, Peck C, Goldberg ME. The time course of the tonic oculomotor proprioceptive signal in area 3a of somatosensory cortex. *J Neurophysiol.* 2011;106(1):71-77. doi:10.1152/jn.00668.2010

2. Xu BY, Karachi C, Goldberg ME. The Postsaccadic Unreliability of Gain Fields Renders It Unlikely that the Motor System Can Use Them to Calculate Target Position in Space. *Neuron*. 2012;76(6):1201-1209. doi:10.1016/j.neuron.2012.10.034
3. Xu BY, Israelsen P, Pan BX, Wang D, Jiang X, Varma R. Benefit of measuring anterior segment structures using an increased number of optical coherence tomography images: The Chinese American Eye Study. *Invest Ophthalmol Vis Sci*. 2016;57(14):6313-6319. doi:10.1167/iovs.16-19755
4. Huang AS, Camp A, Xu BY, Penteado RC, Weinreb RN. Aqueous Angiography: Aqueous Humor Outflow Imaging in Live Human Subjects. *Ophthalmology*. 2017;124(8):1249-1251. doi:10.1016/j.ophtha.2017.03.058
5. Xu BY, Mai DD, Penteado RC, Saunders L, Weinreb RN. Reproducibility and Agreement of Anterior Segment Parameter Measurements Obtained Using the CASIA2 and Spectralis OCT2 Optical Coherence Tomography Devices. *J Glaucoma*. 2017;26(11):974-979. doi:10.1097/IJG.0000000000000788
6. Xu BY, Penteado RC, Weinreb RN. Diurnal Variation of Optical Coherence Tomography Measurements of Static and Dynamic Anterior Segment Parameters. *J Glaucoma*. 2018;27(1):16-21. doi:10.1097/IJG.0000000000000832
7. Xu BY, Burkemper B, Lewinger JP, Jiang X, Pardeshi AA, Richter G, Torres M, McKean-Cowdin R, Varma R. Correlation between Intraocular Pressure and Angle Configuration Measured by OCT. *Ophthalmol Glaucoma*. 2018;1(3):158-166. doi:10.1016/j.ogla.2018.09.001
8. Xu BY, Pardeshi AA, Burkemper B, Richter GM, Lin SC, McKean-Cowdin R, Varma R. Quantitative evaluation of gonioscopic and EyeCam assessments of angle dimensions using anterior segment optical coherence tomography. *Transl Vis Sci Technol*. 2018;7(6):33. doi:10.1167/tvst.7.6.33
9. Xu BY, Pardeshi AA, Burkemper B, Richter GM, Lin SC, McKean-Cowdin R, Varma R. Differences in anterior chamber angle assessments between gonioscopy, eyecam, and anterior segment OCT: The Chinese American eye study. *Transl Vis Sci Technol*. 2019;8(2):5. doi:10.1167/tvst.8.2.5
10. Xu BY, Varma R. Surgical Management of Primary Angle-Closure Disease - Why Less Is More. *JAMA Ophthalmol*. 2019;137(10):1113-1114. doi:10.1001/jamaophthalmol.2019.2503
11. Shan J, DeBoer C, Xu BY. Anterior segment optical coherence tomography: Applications for clinical care and scientific research. *Asia-Pac J Ophthalmol*. 2019;8(2):146-157. doi:10.22608/APO.201910
12. Chang R, Chu Z, Burkemper B, Lee GC, Fard A, Durbin MK, Reznik A, Xu BY, Kashani A, Varma R, Wang RK, Richter GM. Effect of scan size on glaucoma diagnostic performance using OCT angiography en face images of the radial peripapillary capillaries. *J Glaucoma*. 2019;28(5):465-472. doi:10.1097/IJG.0000000000001216
13. Chang R, Nelson AJ, LeTran V, Vu B, Burkemper B, Chu Z, Fard A, Kashani AH, Xu BY, Wang RK, Varma R, Richter GM, McKean-Cowdin R, Torres M, Fairbrother-Crisp A, Choudhury F, Jiang X, Adamashvili T, Lastra C, Corona E, Wang YP, Douglass J, Barrera J, Linton J. Systemic Determinants of Peripapillary Vessel Density in Healthy African Americans: The African American Eye Disease Study. *Am J Ophthalmol*. 2019;207:240-247. doi:10.1016/j.ajo.2019.06.014

14. Xu BY, Chiang M, Chaudhary S, Kulkarni S, Pardeshi AA, Varma R. Deep Learning Classifiers for Automated Detection of Gonioscopic Angle Closure Based on Anterior Segment OCT Images. *Am J Ophthalmol.* 2019;208:273-280. doi:10.1016/j.ajo.2019.08.004
15. Xu BY, Pardeshi AA, Shan J, DeBoer C, Moghimi S, Richter G, McKean-Cowdin R, Varma R. Effect of Angle Narrowing on Sectoral Variation of Anterior Chamber Angle Width. *Ophthalmol Glaucoma.* 2020;3(2):130-138. doi:10.1016/j.ogla.2019.12.005
16. Xu BY, Chiang M, Pardeshi AA, Moghimi S, Varma R. Deep neural network for scleral spur detection in anterior segment OCT images: The Chinese American eye study. *Transl Vis Sci Technol.* 2020;9(2):1-10. doi:10.1167/tvst.9.2.18
17. Gange WS, Xu BY, Lung K, Toy BC, Seabury SA. Rates of Eye Care and Diabetic Eye Disease among Insured Patients with Newly Diagnosed Type 2 Diabetes. *Ophthalmol Retina.* 2021;5(2):160-168. doi:10.1016/j.oret.2020.07.004
18. Pardeshi AA, Song AE, Lazkani N, Xie X, Huang A, Xu BY. Intradvice repeatability and interdevice agreement of ocular biometric measurements: A comparison of two swept-source anterior segment oct devices. *Transl Vis Sci Technol.* 2020;9(9):1-9. doi:10.1167/tvst.9.9.14
19. Nelson AJ, Chu Z, Burkemper B, Chang BR, Xu B, Wang RK, Richter GM. Clinical Utility of Triplicate En Face Image Averaging for Optical Coherence Tomography Angiography in Glaucoma and Glaucoma Suspects. *J Glaucoma.* 2020;29(9):823-830. doi:10.1097/IJG.0000000000001570
20. Lee JC, Grisafe DJ, Burkemper B, Chang BR, Zhou X, Chu Z, Fard A, Durbin M, Wong BJ, Song BJ, Xu BY, Wang R, Richter GM. Intrasession repeatability and intersession reproducibility of peripapillary OCTA vessel parameters in non-glaucomatous and glaucomatous eyes. *Br J Ophthalmol.* 2021;105(11):1534-1541. doi:10.1136/bjophthalmol-2020-317181
21. Xu BY, Liang S, Pardeshi AA, Lifton J, Moghimi S, Lewinger JP, Varma R. Differences in Ocular Biometric Measurements among Subtypes of Primary Angle Closure Disease: The Chinese American Eye Study. *Ophthalmol Glaucoma.* 2021;4(2):224-231. doi:10.1016/j.ogla.2020.09.008
22. Xie X, Corradetti G, Song A, Pardeshi A, Sultan W, Lee JY, Yu F, Zhang L, Chen S, Chopra V, Sadda SR, Xu B, Huang AS. Age- And refraction-related changes in anterior segment anatomical structures measured by swept-source anterior segment OCT. *PLoS ONE.* 2020;15(10 October). doi:10.1371/journal.pone.0240110
23. Moghimi S, Safizadeh M, Xu BY, Fard MA, Khatibi N, Rao HL, Weinreb RN. Vessel density and retinal nerve fibre layer thickness following acute primary angle closure. *Br J Ophthalmol.* 2020;104(8):1103-1108. doi:10.1136/bjophthalmol-2019-314789
24. Do JL, Xu BY, Wong B, Camp A, Ngai P, Long C, Proudfoot J, Moghimi S, Yan D, Welsbie DS, Weinreb RN. A Randomized Controlled Trial Comparing Subconjunctival Injection to Direct Scleral Application of Mitomycin C in Trabeculectomy. *Am J Ophthalmol.* 2020;220:45-52. doi:10.1016/j.ajo.2020.07.002
25. Xu BY, Lifton J, Burkemper B, Jiang X, Pardeshi AA, Moghimi S, Richter GM, McKean-Cowdin R, Varma R. Ocular Biometric Determinants of Anterior Chamber Angle Width in Chinese Americans: The Chinese American Eye Study. *Am J Ophthalmol.* 2020;220:19-26. doi:10.1016/j.ajo.2020.07.030
26. Xie X, Sultan W, Corradetti G, Lee JY, Song A, Pardeshi A, Yu F, Chopra V, Sadda SR, Xu BY, Huang AS. Assessing accommodative presbyopic biometric changes of the entire anterior segment

using single swept-source OCT image acquisitions. *Eye Basingstoke*. Published online February 25, 2021. doi:10.1038/s41433-020-01363-3

27. Chiang M, Guth D, Pardeshi AA, Randhawa J, Shen A, Shan M, Dredge J, Nguyen A, Gokoffski K, Wong BJ, Song B, Lin S, Varma R, Xu BY. Glaucoma Expert-Level Detection of Angle Closure in Goniophotographs With Convolutional Neural Networks: The Chinese American Eye Study. *Am J Ophthalmol*. 2021;226:100-107. doi:10.1016/j.ajo.2021.02.004
28. Grisafe DJ, Varma R, Burkemper BS, Xu BY, Torres M, Fairbrother-Crisp A, Patino CM, McKean-Cowdin R, African American Eye Disease Study Group. Impact of Visual Field Loss on Vision-Specific Quality of Life in African Americans: The African American Eye Disease Study. *Am J Ophthalmol*. 2021;229:52-62. doi:10.1016/j.ajo.2021.02.008
29. Cano J, Rahimi M, Xu BY, Richter GM, Tan O, Huang D, Shahidi M. Relationship Between Macular Vessel Density and Total Retinal Blood Flow in Primary Open-angle Glaucoma. *J Glaucoma*. 2021;30(8):666-671. doi:10.1097/IJG.0000000000001880
30. Phillips MJ, Dinh-Dang D, Bolo K, Burkemper B, Lee JC, LeTran VH, Chang BR, Grisafe DJ, Chu Z, Zhou X, Song BJ, Xu BY, Wong B, Wang RK, Richter GM. Steps to Measurement Floor of an Optical Microangiography Device in Glaucoma. *Am J Ophthalmol*. 2021;231:58-69. doi:10.1016/j.ajo.2021.05.012
31. Hong KL, Burkemper B, Urrea AL, Chang BR, Lee JC, LeTran VH, Chu Z, Zhou X, Xu BY, Wong BJ, Song BJ, Jiang X, Wang RK, Varma R, Richter GM. Hemiretinal Asymmetry in Peripapillary Vessel Density in Healthy, Glaucoma Suspect, and Glaucoma Eyes. *Am J Ophthalmol*. 2021;230:156-165. doi:10.1016/j.ajo.2021.05.019
32. Xu BY, Friedman DS, Foster PJ, Jiang Y, Pardeshi AA, Jiang Y, Munoz B, Aung T, He M. Anatomic Changes and Predictors of Angle Widening after Laser Peripheral Iridotomy: The Zhongshan Angle Closure Prevention Trial. *Ophthalmology*. 2021;128(8):1161-1168. doi:10.1016/j.ophtha.2021.01.021
33. Gange WS, Lopez J, Xu BY, Lung K, Seabury SA, Toy BC. Incidence of Proliferative Diabetic Retinopathy and Other Neovascular Sequelae at 5 Years Following Diagnosis of Type 2 Diabetes. *Diabetes Care*. 2021;44(11):2518-2526. doi:10.2337/dc21-0228
34. Gokoffski KK, Lifton J, Xu BY, Patel VR. Surgical Outcomes of Transposition Surgery for the Correction of Large-Angle Strabismus. *J Neuro-Ophthalmol Off J North Am Neuro-Ophthalmol Soc*. 2021;41(4):e806-e814. doi:10.1097/WNO.0000000000001372
35. Shen A, Chiang M, Pardeshi AA, McKean-Cowdin R, Varma R, Xu BY, Benjamin D, Xu Y. Anterior segment biometric measurements explain misclassifications by a deep learning classifier for detecting gonioscopic angle closure. *Br J Ophthalmol*. 2021;0:1-6. doi:10.1136/BJOPHTHALMOL-2021-319058
36. Xu BY, Friedman DS, Foster PJ, Jiang Y, Porporato N, Pardeshi AA, Jiang Y, Munoz B, Aung T, He M. Ocular Biometric Risk Factors for Progression of Primary Angle Closure Disease: The Zhongshan Angle Closure Prevention Trial. *Ophthalmology*. 2021;0(0). doi:10.1016/J.OPHTHA.2021.10.003
37. Randhawa J, Chiang M, Porporato N, Pardeshi AA, Dredge J, Apolo Aroca G, Tun TA, Quah JH, Tan M, Higashita R, Aung T, Varma R, Xu BY. Generalisability and performance of an OCT-based deep learning classifier for community-based and hospital-based detection of gonioscopic angle closure. *Br J Ophthalmol*. Published online October 20, 2021:bjophthalmol-2021-319470. doi:10.1136/bjophthalmol-2021-319470

38. Lifton J, Burkemper B, Jiang X, Pardeshi AA, Richter G, McKean-Cowdin R, Varma R, Xu BY. Ocular Biometric Determinants of Dark-to-Light Change in Angle Width: The Chinese American Eye Study. *Am J Ophthalmol*. 2021;237:183-192. doi:10.1016/J.AJO.2021.10.027
39. Shan J, Pardeshi A, Jiang X, Richter GM, McKean-Cowdin R, Varma R, Xu BY. Optimal number and orientation of anterior segment OCT images to measure ocular biometric parameters in angle closure eyes: the Chinese American Eye Study. *Br J Ophthalmol*. Published online January 21, 2022:bjophthalmol-2021-319275. doi:10.1136/BJOPHTHALMOL-2021-319275
40. Grisafe DJ, McKean-Cowdin R, Burkemper BS, Xu BY, Torres M, Varma R, Multiethnic Ophthalmology Cohorts of California Study Group. Visual Field Loss Impacts Vision-Specific Quality of Life by Race and Ethnicity: The Multiethnic Ophthalmology Cohorts of California Study. *Ophthalmology*. 2022;129(6):668-678. doi:10.1016/j.ophtha.2022.01.001
41. Apolo G, Bohner A, Pardeshi A, Lung K, Toy B, Wong B, Song B, Camp A, Xu B. Racial and Sociodemographic Disparities in the Detection of Narrow Angles before Detection of Primary Angle-Closure Glaucoma in the United States. *Ophthalmol Glaucoma*. Published online January 2022. doi:10.1016/j.ogla.2022.01.001
42. Porporato N, Chong R, Xu BY, Tun TA, Quah JH, Tan M, Baskaran M, Cheng CY, Aung T. Angle closure extent, anterior segment dimensions and intraocular pressure. *Br J Ophthalmol*. Published online March 2, 2022:bjophthalmol-2021-320453. doi:10.1136/bjophthalmol-2021-320453
43. LeTran VH, Burkemper B, O'Fee JR, Sovereign EA, Lee JC, Phillips MJ, Dinh-Dang D, Song BJ, Xu BY, Wong BJ, Richter GM. Wedge Defects on Optical Coherence Tomography Angiography of the Peripapillary Retina in Glaucoma: Prevalence and Associated Clinical Factors. *J Glaucoma*. 2022;31(4):242-249. doi:10.1097/IJG.0000000000001991
44. Vorperian A, Khan N, Lee J, Burkemper B, Zhou X, Grisafe D, LeTran V, Chu Z, Wong B, Xu B, Song B, Wang RK, Richter G. Intrasession Repeatability and Intersession Reproducibility of Macular Vessel Parameters on Optical Coherence Tomography Angiography in Glaucomatous and Non-Glaucomatous Eyes. *Curr Eye Res*. 2022;47(7):1068-1076. doi:10.1080/02713683.2022.2061004
45. Shen AJ, Urrea AL, Lee JC, Burkemper B, LeTran VH, Zhou X, Chu Z, Grisafe DJ, Fard A, Wong B, Song B, Xu BY, Wang RK, Richter GM. Repeatability and Reproducibility of 4.5 by 4.5 mm Peripapillary Optical Coherence Tomography Angiography Scans in Glaucoma and Nonglaucoma Eyes. *J Glaucoma*. Published online June 16, 2022. doi:10.1097/IJG.0000000000002054
46. Zhang J, Murgoitio-Esandi J, Qian X, Li R, Gong C, Nankali A, Hao L, Xu B, Kirk Shung K, Oberai A, Zhou Q. High Frequency Ultrasound Elastography to Assess the Nonlinear Elastic Properties of the Cornea and Ciliary Body. *IEEE Trans Ultrason Ferroelectr Freq Control*. 2022;PP. doi:10.1109/TUFFC.2022.3190400
47. Yoo K, Apolo G, Zhou S, Burkemper B, Lung K, Song B, Wong B, Toy B, Camp A, Xu B. Rates and Patterns of Diagnostic Conversion from Anatomical Narrow Angle to Primary Angle Closure Glaucoma in the United States. *Ophthalmol Glaucoma*. Published online September 1, 2022:S2589-4196(22)00171-5. doi:10.1016/j.ogla.2022.08.016
48. Yamane M, Ferreyra H, Xu BY, Weinreb RN, Camp AS. Detection of Nonglaucomatous Macula Findings With Ganglion Cell Analysis Printouts vs Full Macular Cube Scans. *JAMA Ophthalmol*. Published online September 8, 2022. doi:10.1001/jamaophthalmol.2022.3450

49. Li R, Qian X, Gong C, Zhang J, Liu Y, Xu B, Humayun MS, Zhou Q. Simultaneous Assessment of the Whole Eye Biomechanics Using Ultrasonic Elastography. *IEEE Trans Biomed Eng.* 2022;PP. doi:10.1109/TBME.2022.3215498
50. Yuen J, Xu B, Song BJ, Daskivich LP, Rodman J, Wong BJ. Effectiveness of glaucoma screening and factors associated with follow-up adherence among glaucoma suspects in a safety net teleretinal screening program. *Ophthalmol Glaucoma*. Published online November 1, 2022:S2589-4196(22)00208-3. doi:10.1016/j.ogla.2022.10.007
51. Apolo G, Lazkani N, Zhou S, Song AE, Pardeshi AA, Torossian L, Nguyen K, Weinreb RN, Xu BY. Age-Related Changes in Dynamic Iris Behavior Assessed Using a Programmable Closed-Loop Iris Control System. *Transl Vis Sci Technol.* 2022;11(11):9. doi:10.1167/tvst.11.11.9
52. Murgoitio-Esandi J, Xu BY, Song BJ, Zhou Q, Oberai AA. A Mechanistic Model of Aqueous Humor Flow to Study Effects of Angle Closure on Intraocular Pressure. *Transl Vis Sci Technol.* 2023;12(1):16. doi:10.1167/tvst.12.1.16
53. Role of Refractive Error and Anterior Chamber Depth as Risk Factors in Primary Angle Closure Disease: The Chinese American Eye Study. Zhou S, Pardeshi AA, Burkemper B, Apolo G, Jiang X, Torres M, McKean-Cowdin R, Varma R, Xu BY. *J Glaucoma*. (In Press)

#### PODIUM PRESENTATIONS:

1. **Xu BY**, Chiang M, Chaudhary S, Kulkarni S, Pardeshi AA, Varma R. “Deep Learning Classifiers for Automated Detection of Gonioscopic Angle Closure Based on Anterior Segment OCT Images: The Chinese American Eye Study.” World Glaucoma Congress, 2019.
2. **Xu BY**, Friedman DS, Foster PJ, Yu J, Pardeshi AA, Jiang Y, Munoz B, Aung T, He M. Anatomical Changes and Predictors of Angle Widening After Laser Peripheral Iridotomy: The Zhongshan Angle Closure Prevention Trial. American Glaucoma Society Annual Conference, 2021.
3. **Xu BY**, Friedman DS, Foster PJ, Yu J, Pardeshi AA, Jiang Y, Porporato N, Munoz B, Aung T, He M. Ocular Biometric Risk Factors for Progression of Primary Angle Closure Disease: The Zhongshan Angle Closure Prevention. American Glaucoma Society Annual Conference, 2022.
4. Shah S, Burkemper B, Apolo G, Lum F, Moghimi S, **Xu BY**. Racial and Sociodemographic Disparities in Visual Impairment and Blindness Associated with Primary Angle Closure Glaucoma: An IRIS Registry Analysis. American Glaucoma Society Annual Conference, 2022.

#### POSTER PRESENTATIONS:

1. **Xu Y**, Arieh Y, Luczek A, Oh J, Thomas J and Laubach M. Verifying Neural Codes with a Cluster of Workstations. Society for Neuroscience Annual Meeting, 2003.
2. Wang X, **Xu Y** and Goldberg ME, The Time Course of the Tonic Oculomotor Proprioceptive Signal. Society for Neuroscience Annual Meeting, 2007.
3. **Xu Y**, Karachi C and Goldberg, ME. Eye Position Modulation of Responses in the Lateral Intraparietal Area Lags the Eye Movement. Computational and Systems Neurobiology Conference, 2010.
4. **Xu Y**, Karachi C and Goldberg ME. The oculomotor system does not use LIP visual gain fields to calculate saccade target positions. Society for Neuroscience Annual Meeting, 2010.
5. **Xu Y**, Karachi C and Goldberg ME. The temporal dynamics of gain fields preclude the oculomotor system from using them to calculate target position in space. The Association for Research in Vision and Ophthalmology Annual Meeting, 2011.

6. **Xu Y**, Israelson P, Dorn J, Humayun M, Olmos de Koo LC. Developing an Improved Method to Evaluate Retinitis Pigmentosa Patients for the Argus II Retinal Prosthesis System. The Association for Research in Vision and Ophthalmology Annual Meeting, 2014.
7. Israelson P, **Xu BY**, Wang D, Varma R. The Impact of Analyzing an Increased Number of Anterior Segment OCT Images on the Measurement of Angle Structures: The Chinese American Eye Study. The Association for Research in Vision and Ophthalmology Annual Meeting, 2015.
8. Pan BX, **Xu BY**, Israelson P, Wang D, Varma R. Evaluating the Inter-Quadrant Variation in Anterior Chamber Angle Measurements Using Anterior Segment OCT: The Chinese American Eye Study. The Association for Research in Vision and Ophthalmology Annual Meeting, 2015.
9. **Xu BY**, Israelson P, Wang D, Varma R. Constructing a Biomechanical Model of the Anterior Chamber Angle Using Anterior Segment OCT Imaging: The Chinese American Eye Study. The Association for Research in Vision and Ophthalmology Annual Meeting, 2015.
10. **Xu BY**, Israelson P, Wang D, Varma R. Gonioscopy versus Anterior Segment OCT in Assessing Patient Risk for Elevated IOP: The Chinese American Eye Study. American Academy of Ophthalmology Annual Meeting, 2015.
11. Naik N, **Xu BY**, Israelson P, Pan BX, Wang D, Jiang X, Varma R. A New Definition of Narrow Angles Based on Anterior Segment Optical Coherence Tomography Measurements: The Chinese American Eye Study. The Association for Research in Vision and Ophthalmology Annual Meeting, 2016.
12. **Xu BY**, Israelson P, Wang D, Jiang X, Varma R. The Relationship Between Intraocular Pressure and Sectoral Angle Narrowing As Measured with Anterior Segment Optical Coherence Tomography. The Association for Research in Vision and Ophthalmology Annual Meeting, 2016.
13. Mai DD, **Xu BY**, Penteado RC, Weinreb RN. A Comparison of Measurement Values Obtained from Two Spectral Domain Anterior Segment Optical Coherence Tomography Devices. The Association for Research in Vision and Ophthalmology Annual Meeting, 2017.
14. **Xu BY**, Penteado RC, Weinreb RN. Diurnal Variation in Optical Coherence Tomography Measurements of Anterior Segment Structures. The Association for Research in Vision and Ophthalmology Annual Meeting, 2017.
15. Shan J, Pardeshi AA, Varma R, **Xu BY**. Correlations Between Anterior Segment Optical Coherence Tomography Parameters in Different Stages of Primary Angle Closure Disease. The Association for Research in Vision and Ophthalmology Annual Meeting, 2018.
16. **Xu BY**, Burkemper B, Richter GM, Pardeshi AA, Grisafe D, Torres M, Jiang X, McKean-Cowdin R, Varma R. Prevalence and Characteristics of Primary Angle Closure Disease in an Adult Chinese American Population: The Chinese American Eye Study. The Association for Research in Vision and Ophthalmology Annual Meeting, 2018.
17. **Xu BY**, Burkemper B, Lewinger JP, Jiang X, Pardeshi AA, Richter G, Torres M, McKean-Cowdin R, Varma R. Correlation between Intraocular Pressure and Angle Configuration Measured by OCT. American Glaucoma Society Annual Conference, 2019.
18. **Xu BY**, Chiang M, Chaudhary S, Kulkarni S, Pardeshi AA, Varma R. Deep Learning Classifiers for Automated Detection of Gonioscopic Angle Closure Based on Anterior Segment OCT Images: The Chinese American Eye Study. World Glaucoma Congress, 2019.
19. Penteado R, **Xu BY**, Yang D, Proudfoot J, Susanna R, Weinreb RN. Effect of Body Position on Anterior Chamber Angle Dimensions Assessed by Anterior Segment Optical Coherence Tomography. The Association for Research in Vision and Ophthalmology Annual Meeting, 2019.
20. Shan J, DeBoer C, Pardeshi AA, Varma R, **Xu BY**. Quantitative OCT-Based Analysis of Anterior Chamber Configuration and Anatomical Variation in Eyes with Variable Severity of Angle Closure. The Association for Research in Vision and Ophthalmology Annual Meeting, 2019.



21. DeBoer C, Shan J, Pardeshi AA, Varma R, **Xu BY**. Number of Anterior Segment OCT Images Required to Capture Anatomical Variations in Angle Closure Eyes: The Chinese American Eye Study. The Association for Research in Vision and Ophthalmology Annual Meeting, 2019.
22. **Xu BY**, Pardeshi AA, Burkemper B, Richter GM, Lin S, McKean-Cowdin, Varma R. Differences in Anterior Chamber Angle Assessments Between Gonioscopy, EyeCam, and Anterior Segment OCT. The Association for Research in Vision and Ophthalmology Annual Meeting, 2019.
23. **Xu BY**, Chiang M, Dredge J, Pardeshi AA, Song AE, Varma R. Clinical Validation of a Deep Learning Classifier for Detecting Gonioscopic Angle Closure on Anterior Segment OCT Images. American Glaucoma Society Annual Conference, 2020.
24. **Xu BY**, Lifton J, Burkemper B, Jiang X, Pardeshi AA, Moghimi S, Richter G, McKean-Cowdin R, Varma R. Ocular Biometric Determinants of Anterior Chamber Angle Width: The Chinese American Eye Study. The Association for Research in Vision and Ophthalmology Annual Meeting, 2020.
25. Shen A, Chiang M, Pardeshi A, Varma R, **Xu BY**. Biometric Analysis of Misclassifications by an Anterior Segment OCT-based Deep Learning Classifier for Gonioscopic Angle Closure. The Association for Research in Vision and Ophthalmology Annual Meeting, 2020.
26. Lazkani N, Pardeshi AA, Song A, **Xu BY**. Development and Testing of a Novel OCT-based Pupil Control System for Real-Time Assessment of Dynamic Iris Behavior. The Association for Research in Vision and Ophthalmology Annual Meeting, 2020.
27. Pardeshi AA, Song AE, Lazkani N, Xie X, Huang A, **Xu BY**. Intra- and Inter-Device Reproducibility of Biometric Measurements Obtained By Two Swept-Source Anterior Segment OCT Devices. The Association for Research in Vision and Ophthalmology Annual Meeting, 2020.
28. Shen A, Chiang MF, Pardeshi AA, McKean-Cowdin R, **Xu BY**. A. Anterior Segment Biometric Measurements Explain Misclassifications by a Deep Learning Classifier for Detecting Gonioscopic Angle Closure. Association for Research in Vision and Ophthalmology Annual Meeting, 2021.
29. Khan N, Vorperian A, Lee J, Burkemper B, Zhou X, LeTran V, Chu Z, Song BJ, Wong B, **Xu BY**, Wang RK, Varma R, Richter G. Systemic and Ocular Determinants of Macular Vessel Metrics in Optical Coherence Tomography Angiography (OCTA) 6x6 Scans in Healthy African Americans. Association for Research in Vision and Ophthalmology Annual Meeting, 2021.
30. Lee J, Burkemper B, Jain A, LeTran V, Zhou X, Chu Z, Song BJ, Wong B, **Xu BY**, Wang RK, Richter GM. Longitudinal changes in optical coherence tomography angiography (OCTA) parameters versus retinal nerve fiber layer (RNFL) in glaucomatous and non-glaucomatous eyes. Association for Research in Vision and Ophthalmology Annual Meeting, 2021.
31. Yoo K, Apolo G, Zhou S, Burkemper B, **Xu BY**. Rates and Risk Factors of Progression from Anatomical Narrow Angle to Primary Angle Closure Glaucoma: A Healthcare Claims Analysis. American Glaucoma Society Annual Conference, 2022.
32. Zhou S, Pardeshi AA, Burkemper B, Apolo G, Jiang X, Torres M, McKean-Cowdin R, Varma R, **Xu BY**. Role of Refractive Error and Anterior Chamber Depth as Risk Factors in Primary Angle Closure Disease: The Chinese American Eye Study. American Glaucoma Society Annual Conference, 2022.
33. Li R, Qian X, Gong C, Liu Y, Zhang J, **Xu BY**, Humayun M, Zhou Q. Simultaneous Assessment of the Whole Eye Biomechanics Using High Frequency Ultrasonic Elastography. Association for Research in Vision and Ophthalmology Annual Meeting, 2022.
34. Yuen J, **Xu BY**, Song BJ, Daskivich LP, Wong B. Outcomes and Risk Factors for Noncompliance in Glaucoma Suspects Identified by Teleretinal Screening in a Safety Net Patient Population. Association for Research in Vision and Ophthalmology Annual Meeting, 2022.
35. McKean-Cowdin R, Grisafe DJ, Torres M, Burkemper B, Ding K, Jiang X, **Xu BY**, Varma R. Differences in Vision-Specific Quality of Life with Visual Acuity by Race, Ethnicity in the Multiethnic Ophthalmology

Cohorts of California Study (MOCCaS). Association for Research in Vision and Ophthalmology Annual Meeting, 2022.

36. Apolo G, Lazkani N, Zhou S, Song A, Pardeshi AA, Weinreb RN, **Xu BY**. Age-related Changes in Dynamic Iris Behavior Using a Closed-Loop Iris Control System. Association for Research in Vision and Ophthalmology Annual Meeting, 2022.
37. Arora S, Rao A, Burkemper B, Lee J, Fard A, Yu S, Nguyen V, **Xu BY**, Wong B, Richter G, Song B. Intrasession repeatability of OCTA 4.5mm and 6mm image scans for glaucomatous and non-glaucomatous eyes. Association for Research in Vision and Ophthalmology Annual Meeting, 2022.
38. Rao A, Huang C, Lee J, Burkemper B, Arora S, Wang RK, Zhou X, Fard A, Yu S, Nguyen V, Wong B, **Xu BY**, Song B, Richter G. Evaluation of Peripapillary Macular Vessel Density following Intraocular Pressure Reduction Using Optical Coherence Tomography Angiography. Association for Research in Vision and Ophthalmology Annual Meeting, 2022.

#### **INVITED LECTURES:**

1. Anterior Segment OCT in Angle Closure. Los Angeles County Optometric Society Symposium, Los Angeles, CA, 8/2017.
2. Medical Management of Glaucoma, Old and New. Marshall B. Ketchum University SCCO Advances in Eye Care Symposium, Los Angeles, CA, 9/2017.
3. Demystifying the Humphrey Visual Field. Marshall B. Ketchum University SCCO Advances in Eye Care Symposium, Los Angeles, CA, 12/2017.
4. What's New in Angle Closure Glaucoma. University of California San Diego Annual Shiley Update, San Diego, CA, 2/2018.
5. What's New in Angle Closure Glaucoma. University of Southern California Annual Glaucoma CME, Los Angeles, CA, 4/2018.
6. Detection and Management of Glaucoma in the Myopic Patient. University of Southern California Annual Ophthalmology Symposium 2018, Los Angeles, CA, 6/2018.
7. Diagnosis and Management of Primary Angle Closure Disease. Marshall B. Ketchum University SCCO Advances in Eye Care Symposium, Los Angeles, CA, 7/2018.
8. Pharmacologic Treatment of Glaucoma, Old and New. San Gabriel Valley Optometry Society CE, Los Angeles, CA, 11/2018.
9. Glaucoma: Structure and Function. Marshall B. Ketchum University SCCO Advances in Eye Care Symposium, Los Angeles, CA, 2/2019.
10. Advances in the Management of Primary Angle Closure Disease. University of California Los Angeles Glaucoma Rounds, Los Angeles, CA, 5/2019.
11. Iridocorneal Angle Assessments, Old and New. University of Southern California Annual Ophthalmology Symposium, Los Angeles, CA, 6/2019.
12. Modernizing the Detection and Management of Primary Angle Closure Disease. University of Southern California Ophthalmology Research Update, Los Angeles, CA, 9/2019.
13. Automated Analysis of Anterior Segment OCT Images for Primary Angle Closure Disease. 15<sup>th</sup> Annual Asian Angle Closure Glaucoma Club Conference, Seoul, Korea, 11/2019.
14. Artificial Intelligence and Automating the Detection of Angle Closure Disease. 4<sup>th</sup> Annual Doheny International Glaucoma Symposium, Los Angeles, CA, 12/2019.
15. Artificial Intelligence and Automated Analysis of Anterior Segment OCT Images. 7<sup>th</sup> International OCT Angiography and En Face OCT Congress, Rome, Italy, 12/2019.

16. Prevalence and Characteristics of Primary Angle Closure Disease in Chinese American. 35<sup>th</sup> Annual Asia-Pacific Association of Ophthalmology Conference, Xiamen, China, 6/2020
17. Clinical and Surgical Management of Primary Angle Closure Disease: Past, Present, and Future. San Gabriel Valley Optometry Society CE, Los Angeles, CA, 8/2020.
18. Clinical Applications of Quantitative Anterior Segment OCT Imaging in Angle Closure Disease. Heidelberg Engineering Virtual International Symposium 2020, Virtual, 10/2020.
19. New Developments in Angle Closure Glaucoma. University of Southern California Annual Glaucoma CME, Los Angeles, CA, 4/2021.
20. Modernizing the Detection and Management of Primary Angle Closure Disease. University of Southern California Ophthalmology Research Update, Virtual, 4/2021.
21. Anatomical Changes and Predictors of Angle Widening After Laser Peripheral Iridotomy: The Zhongshan Angle Closure Prevention Trial. 9<sup>th</sup> World Glaucoma Congress, Virtual, 6/2021.
22. Is Peripheral Iridotomy Necessary in Angle Closure Suspects? 9<sup>th</sup> World Glaucoma Congress, Virtual, 6/2021.
23. Applications of Artificial Intelligence in Angle Closure Disease. 9<sup>th</sup> World Glaucoma Congress, Virtual, 6/2021.
24. Glaucoma Management in the Era of Artificial Intelligence. University of Southern California Annual Ophthalmology Symposium, Virtual, 6/2021.
25. Benefit of Performing LPI in PACS. Asian Pacific Academy of Ophthalmology, Virtual, 8/2021.
26. Automated Biometric Analysis: New Frontiers in Anterior Segment OCT Imaging. Heidelberg Engineering Virtual International Symposium 2021, Virtual, 9/2021.
27. Pharmacologic Treatment of Glaucoma, Old and New. San Gabriel Valley Optometry Society CE, Los Angeles, CA, 10/2021.
28. Modernizing the Detection and Management of Primary Angle Closure Disease. University of California San Diego (UCSD) Shiley Eye Institute Grand Rounds, Virtual, 10/2021.
29. Treating Primary Angle Closure Disease: What's the Evidence? University of California San Diego Glaucoma Rounds, Virtual, 3/2022.
30. OCT Imaging in Angle Closure: Present and Future. Heidelberg Engineering Monthly Palaver, Virtual, 7/2022.
31. OCT Imaging in Angle Closure: Present and Future. Singapore National Eye Center. Singapore, 7/2022.
32. Utility of Artificial Intelligence in Diagnosing Primary Angle Closure Disease. Asian Pacific Glaucoma Congress 2022, Kuala Lumpur, Malaysia, 8/2022.
33. Management of Angle Closure: Present and Future. Asan Medical Center. Seoul, Korea, 11/2022.
34. Updates in Angle Closure Glaucoma. University of Southern California Annual Winter Ophthalmology Symposium, Los Angeles, CA, 12/2022.

#### **BOOKS AND CHAPTERS:**

1. Varma R, **Xu BY**, Richter GM, Reznik A (Eds). Advances in Ocular Imaging in Glaucoma. Berlin, Germany: Springer International Publishing.
2. **Xu BY**, Aung T. Anterior Segment Optical Coherence Tomography. In Varma et al. Advances in Ocular Imaging in Glaucoma. (1<sup>st</sup> ed., pp. 1-17). Berlin, Germany: Springer International Publishing.

3. Wong BJ, Xu BY, He M. Examination of the Optic Nerve in Glaucoma. In Varma et al. Advances in Ocular Imaging in Glaucoma. (1<sup>st</sup> ed., pp. 1-17). Berlin, Germany: Springer International Publishing.

**JOURNAL REVIEWER:**

Ophthalmology  
JAMA Ophthalmology  
American Journal of Ophthalmology  
British Journal of Ophthalmology  
Investigative Ophthalmology and Visual Science  
Translational Vision Science and Technology  
Ophthalmology Science  
Scientific Reports  
PLOS One  
Journal of Glaucoma  
Journal of Ophthalmology  
Canadian Journal of Ophthalmology  
BMC Ophthalmology  
BMJ Open Ophthalmology  
IEEE Access

**PATIENT CARE AWARDS:**

Los Angeles Magazine – L.A.’s Top Doctors 2020  
Super Doctors Southern California Magazine – Southern California Rising Star 2020  
Los Angeles Magazine – L.A.’s Top Doctors 2021  
Super Doctors Southern California Magazine – Southern California Rising Star 2021  
Pasadena Magazine – Pasadena’s Top Doctors 2021  
Newsweek Magazine – America’s Best Eye Doctors 2021 (#75)  
Super Doctors Southern California Magazine – Southern California Rising Star 2022  
Los Angeles Magazine – L.A.’s Top Doctors 2022  
Newsweek Magazine – America’s Best Eye Doctors 2022 (#92)

**GLAUCOMA FELLOWS TRAINED:**

Timothy Fox, MD – 2017-2018  
Lauren S. Dhar – 2018-2019  
Justin Dredge, MD – 2019-2020  
David Kay, MD – 2020-2021

Van Nguyen, MD – 2021-2022

Benjamin Lee, MD – 2022-2023

**PHD THESIS COMMITTEES:**

Dominic Grisafe, MD, PhD – Preventive Medicine, University of Southern California – 2018-2020

Runze Li, PhD – Biomedical Engineering, University of Southern California – 2018-Present

Daniel Guth, PhD – Economics, California Institute of Technology – 2018-Present

Anmol Pardeshi, PhD – Preventive Medicine, University of Southern California – 2021-Present