

**Cornea Image Analysis Reading Center (CIARC)
Publications List – June 2022**

1. Lass JH, Reinhart WJ, Bruner WE, Kachmer ML, Lomeo MD, Morgan KM, Glavan I, and Sanders DR: Comparison of corneal storage in K-Sol and Chondroitin Sulfate Corneal Storage Medium in human corneal transplantation. *Ophthalmology* 96:688-697, 1989.
2. Lass JH, Reinhart WJ, Skelnik DL, Bruner WE, Shockley RP, Park JY, Hom DL, Lindstrom RL: An in vitro and clinical comparison of corneal storage with Chondroitin Sulfate Corneal Storage Medium with and without dextran. *Ophthalmology* 97:95-102, 1990.
3. Lass JH, Musch DC, Gordon JV and the Corneal Preservation Study Group: Epidermal growth factor and insulin in use in corneal preservation: Study design and objectives of a multi-center trial. *Refractive and Corneal Surgery* 6:92-98, 1990.
4. Lass JH, DeSantis DM, Reinhart WJ, Hossain TS, Hom DL: Clinical and morphometric results of penetrating keratoplasty with one- piece anterior chamber or suture-fixated posterior chamber lenses in the absence of lens capsule. *Arch Ophthalmol* 108:1427-31, 1990.
5. Lindstrom RL, Kaufman HE, Skelnik DL, Laing RA, Lass JH, et al: Optisol Corneal Storage Medium. *Am J Ophthalmol* 114:345-356, 1992.
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10. Benetz BA, Diaconu E, Bowlin SJ, Oak S, Laing R, Lass JH: Comparison of corneal endothelial image analysis by SP8000 Konan non-contact and BioOptics BAMBI6 systems. *Cornea* 18:67-72, 1999.
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12. Price MO, Bidros M, Gorovoy M, Price FW, Jr., Benetz BA, Menegay HJ, Debanne SM, Lass JH: Effect of incision width on graft survival and endothelial cell loss after DSAEK. *Cornea* 29:523-27, 2010.
13. Benetz B, Yee R., Bidros, M, and Lass J: Specular Microscopy. In: *Cornea: Fundamentals, Diagnosis, Management*. Edited by Krachmer JH, Mannis JJ, and Holland, EJ. 3rd edition. Mosby. Chapter 14. 2011, pp. 177-203.
14. Schachar RA, Raber S, Thomas K, Benetz BA, Szczotka-Flynn L, Zhang M, Howell S, Lass JH: Sub-clinical increased anterior stromal reflectivity with topical taprenepag isopropyl. *Cornea* 32:306-12, 2013
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16. Sayegh RR, Lass JH. Predicting long-term graft survival after keratoplasty. Expert Review of Ophthalmology. <http://www.tandfonline.com/doi/abs/10.1080/17469899.2016.1226802>.
17. Mayko ZM, Benetz BA, Menegay H, Donovan CP, Stoeger CG, Terry MA, Lass JH. Donor endothelial cell density measurements do not change immediately after DMEK preparation. Cornea 35:1556-61, 2016.
18. Sayegh R, Benetz B, and Lass JH: Specular Microscopy. In: Cornea: Fundamentals, Diagnosis, Management. Edited by Mannis MJ and Holland EJ. 4th edition. 2016. Elsevier, Chapter 14 pp. 160-179.
19. Gray K, Benetz BA, Stoeger C, Lass J: Current and New Technologies in Corneal Donor Tissue Evaluation: Comparative Image Atlas. Cornea. 37(6)S1-36, 2018 supplement to June 2018 edition
20. Lass JH, Benetz BA, Menegay HJ., Tsipis CP, Cook JT, Boyer DS, Singer M, Erickson, K, Saroj N, Vitti R, Chu KW, Moini H, Soo Y, Cheng Y on behalf of the RE-VIEW Study Investigators. Effects of repeated intravitreal aflibercept injection on the corneal endothelium in patients with age-related macular degeneration: Outcomes from the RE-VIEW study. Cornea 37:596-601, 2018.
21. Price MO, Lass JH, Price FW, Jr.: Clinical factors for early and late endothelial cell loss after corneal transplantation. Edited by Perez V, Hamrah P, and Yamaguchi T. Current Ophthalmology Reports. Springer Nature. Philadelphia, PA <https://doi.org/10.1007/s40135-018-0179-y>. 6(3):191-99, 2018
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24. Lass JH, Benetz BA, He J, Hamilton C, Von Tress M, Dickerson J, Lane S. Corneal endothelial cell loss and morphometric changes 5 years after phacoemulsification with or without CyPass supraciliary micro-stent implantation in glaucomatous eyes. Am J Ophthalmol Published online August 1, 2019 <https://doi.org/10.1016/j.ajo.2019.07.016> 208:211-18, 2019 PMID 31377278
25. Lužnik Z, Sun Z, Yin J, Benetz BA, Lass JH, Dana R. A standardized methodology for longitudinal assessment of corneal endothelial morphometry in eye banked corneas. J Biol Methods. 2019;6(4):e120. DOI: 10.14440/jbm.2019.304
26. Joseph N, Kolluru C, Benetz BA, Menegay HJ, Lass JH, Wilson D. Quantitative and qualitative evaluation of deep learning automatic segmentations of corneal endothelial cell images of reduced image quality obtained following corneal transplant. J Medical Imaging 7:014503, 2020 <http://doi.org/10.1117/1.JMI.7.1.014503>
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Menegay HJ, Gardner S, Shekar M, Rajendrababu S, Rhee DJ. Comparative endothelial toxicity of differing intracameral moxifloxacin doses following phacoemulsification. JCRS 2020 Jan 27. doi: 10.1097/j.jcrs.0000000000000064. 46:355-59, 2020.

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29. Wisely CE, Sheng H, Heah T, Kim T. Effects of netarsudil and latanoprost alone and in fixed combination on corneal endothelium and corneal thickness: Post-hoc analysis of MERCURY-2. Adv Ther 37:1114-23, 2020 PMID 31981106 <http://doi.org/10.1007/s12325-020-01227-y> (Cornea Image Analysis Reading Center acknowledged as the reading center for this study)
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31. Joseph NM, Benetz BA, Menegay H, Oellerich S, Baydoun L, Melles G, Lass JH, and Wilson D. Early detection of at-risk keratoplasties and prediction of future corneal graft rejection from pre-diagnosis endothelial cell images. Proc. SPIE 11597, Medical Imaging 2021: Computer-Aided Diagnosis, 115972C (18 February 2021) doi.org/10.1117/12.2582171
32. Huang H, Benetz BA, Clover JM, Titus M, O'Brien RC, Menegay HJ, Lass JH. Comparison of donor corneal endothelial cell density determined by eye banks and by a central image analysis reading center using the same image analysis method. Cornea Published online on November 24, 2021 doi: 10.1097/ICO.0000000000002935 41:664-668, 2022

NEI-sponsored Specular Microscopy Ancillary Study (SMAS) of the Cornea Donor Study (CDS) manuscripts with CIARC

1. Lass JH, Gal RL, Ruedy KJ, et al. An evaluation of image quality and accuracy of eye bank measurement of donor cornea endothelial cell density in the Specular Microscopy Ancillary Study. Ophthalmology 112(3):431-40, 2005.
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5. Lass JH, Sugar A, Benetz BA, Beck RW, Dontchev M, Gal RL, Kollmann C, Gross R, Heck E, Holland EJ, Mannis MJ, Raber I, Stark W, Stulting RD for the Cornea Donor Study Investigator Group. Endothelial cell density to predict endothelial graft failure after penetrating keratoplasty. *Arch Ophthalmol* 128:63-69, 2010.
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Publications List – June 2022**

16. Price MO, Calhoun P, Kollman C, Price FW, Jr., Lass JH: Descemet stripping endothelial keratoplasty: 10-year endothelial cell loss compared with penetrating keratoplasty in the Cornea Donor Study. *Ophthalmology* 123:1421-7, 2016.

NEI-sponsored Cornea Preservation Time Study manuscripts with CIARC

1. Lass JH, Szczotka-Flynn LB, Ayala A, Benetz BA, Gal RL, Aldave AJ, Corrigan M, Dunn S, Kollman C, McCall T, Pramanik S, Rosenwasser G, Ross K, Terry M, Verdier DD, Beck R for the Cornea Preservation Time Study Group: Cornea Preservation Time Study: Methods and impact on the cornea donor pool in the United States. *Cornea* 34:601-08, 2015
2. Lass JH, Benetz BA, Verdier DD, Szczotka-Flynn LB, Ayala AR, Liang W, Aldave AJ, Dunn SP, Ross KW, Mian SI, Patel SV, Rosenwasser GO, Terry MA, Kollman C, Gal RL, Beck R. Corneal endothelial cell loss 3 years after successful Descemet's Stripping Automated Endothelial Keratoplasty in the Cornea Preservation Time Study. *JAMA Ophthalmology* 135:1394-1400, 2017.
3. Stulting RD, Lass JH, Terry MA, Benetz BA, Cohen N, Ayala, AR, Maguire MG, Croasdale C, Daoud Y, Dunn SP, Goins KM, Gupta PC, Macsai MS, Mian SI, Pramanik S, Rose-Nussbaumer J, Song JC, Walter WJ, Sugar, A, Verdier DD, Szczotka-Flynn LB on behalf of the Cornea Preservation Time Study Group. Factors associated with graft rejection in the Cornea Preservation Time Study. *Am J Ophthalmol* 196:197-207,2018. PMID 30308200
4. Lass JH, Benetz BA, Patel SV, Szczotka-Flynn LB, O'Brien R, Ayala AR, Maguire MG, Daoud Y, Greiner MA, Hannush S, Lee WB, Mauger TF, Menegay HJ, Mifflin M, Raizman M, Rose-Nussbaumer J, Schultze R, Schmidt GA, Sugar A, Terry MA, Verdier DD on behalf of the Cornea Preservation Time Study Group. Donor, Recipient, and Operative Factors Influencing Endothelial Cell Loss in the Cornea Preservation Time Study. *JAMA Ophthalmology* 2018 Oct 26. doi: 10.1001/jamaophthalmol.2018.5669. 137:185-193, 2019 PMID 30422157
5. Hannush SB, Drury D, Aldave AJ, Cohen NJ, Szczotka-Flynn LB, Ayala AR, Maguire MG, Berdy GJ, Lee WB, Macsai MS, Meinecke EE, Mian SI, Nordlund ML, Rosenwasser G OD, Ross KW, Sugar A, Terry MA, Tu EY, Van Meter WS, Lass JH on behalf of the Cornea Preservation Time Study Group. Impact of the Cornea Preservation Time Study on donor cornea preservation time and surgeon attitudes. *Int J Eye Banking* 6:1-12, 2018.
6. Benetz BA, Stoeger CG, Patel SV, O'Brien R, Szczotka-Flynn LB, Ayala AR, Maguire MG, Menegay HJ, Bedard P, Clover J, Gupta PC, McCoy K, Song JC, Lass JH on behalf of the Cornea Preservation Time Study. Comparison of donor cornea endothelial cell density determined by eye banks and by a centralized reading center in the Cornea Preservation Time Study. *Cornea*. Published online January 16, 2019. doi: 10.1097/ICO.0000000000001846. 38:426-32, 2019 PMID 30664048
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8. Aldave AJ, Terry MA, Szczotka-Flynn LB, Liang W, Ayala AR, Maguire MG, O'Brien R, Benetz BA, Bokosky J, Dunn SP, Gillette TE, Hammersmith KM, Hardten DR, Jeng BH, Jones MF, Lindstrom RL, Maverick KJ, Nirankari VS, Oliva MS, Raber IM, Rapuano CJ, Rosenwasser G OD, Ross KW, Seedor JW, Shamie N, Stoeger CG, Tauber S, Van Meter WS, Verdier DD, Lass JH on behalf of the Cornea Preservation Time Study Group. Effect of graft attachment status and intraocular pressure on DSAEK outcomes in the Cornea Preservation Time Study. *Am J Ophthalmol*. Published online March 5, 2019 doi: 10.1016/j.ajo.2019.02.029. 203:78-88, 2019 PMID 30849341
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10. Lass JH, Bailey R, Szczotka-Flynn LB, Benetz BA, Soper M, Titus M, Kollman C, Beck R on behalf of the Cornea Preservation Time Study Group. Comparison of graft outcomes reusing original intermediate term cold storage solution for entire corneal donor storage period with exchanged fresh storage solution following donor preparation in the Cornea Preservation Time Study. *Cornea*. In press.

Chapters and Reviews

1. Benetz B, Yee R., Bidros, M, and Lass J: Specular Microscopy. In: *Cornea: Fundamentals, Diagnosis, Management*. Edited by Krachmer JH, Mannis MJ, and Holland, EJ. 3rd edition. Chapter 14. Mosby. 2011. pp. 177-203.
2. Sayegh R, Benetz B, and Lass J: Specular Microscopy. In: *Cornea: Fundamentals, Diagnosis, Management*. Edited by Mannis MJ and Holland, EJ. 4th edition. Elsevier Chapter 14. 2016. pp. 160-179.
3. Gray K, Benetz BA, Stoeger C, Lass J: Current and New Technologies in Corneal Donor Tissue Evaluation: Comparative Image Atlas. *Cornea*. 37(6)S1-36, 2018 supplement to June 2018 edition PMID 29724201, 29734202, 29734203, 29734204, 29734205, 29734206
4. Price MO, Lass JH, Price FW, Jr.: Clinical factors for early and late endothelial cell loss after corneal transplantation. 2018. Edited by Perez V, Hamrah P, and Yamaguchi T. *Current Ophthalmology Reports*. Springer Nature. Philadelphia, PA <https://doi.org/10.1007/s40135-018-0179-y>.
5. Lass JH, Omar AF, Benetz BA: Endothelial cell loss after keratoplasty. *The Corneal Endothelium*. Winter report of the French Ophthalmology Society. Edited by Thuret G. 2020 Elsevier/Masson.
6. Benetz BA, and Lass JH: Specular Microscopy. In: *Cornea: Fundamentals, Diagnosis, Management*. Edited by Mannis MJ and Holland, EJ. 5th edition. 2021 Elsevier. London. Chapter 13 p. 130-151.