

BEATRICE Y.J.T. YUE
CURRICULUM VITAE

RESEARCH INTERESTS:

Biochemical and Molecular Basis of Keratoconus
Biologic Characteristics of Trabecular Meshwork in Health and Disease

EDUCATION:

National Taiwan University, Taipei, Taiwan, B.S. in Chemistry, 1968
Yale University, New Haven, Connecticut, M.S. in Biochemistry, 1972
Washington University School of Medicine, St. Louis, Missouri, Ph.D. in
Biochemistry, 1974

RESEARCH AND PROFESSIONAL EXPERIENCE:

2002-date	Thanis A. Field professor of Ophthalmology and Visual Sciences
1995-date	Professor, Department of Pathology University of Illinois at Chicago (UIC) College of Medicine
1991-date	Professor, Department of Ophthalmology and Visual Sciences, UIC College of Medicine
1985-1991	Research Associate Professor, Department of Ophthalmology UIC College of Medicine
1980-1985	Research Assistant Professor, Department of Ophthalmology UIC College of Medicine
1977-1980	Assistant Professor, Department of Ophthalmology Tufts University School of Medicine
1974-1977	Research Associate, Department of Ophthalmology Tufts University School of Medicine with Dr. Jules L. Baum

GRANTS AND AWARDS:

Endowed Thanis A. Field Professorship, 2002-date.
R01 Research Grant EY 018828 "Cellular Processing of Optineurin, the Product of a Glaucoma Gene" from the National Eye Institute (NEI), Principal Investigator, 2009-2013. Direct cost for the current grant period: \$950,000
R01 Research Grant EY 03890 "Biochemical Basis of Keratoconus" from National Eye Institute, Principal Investigator, 1981-1984, 1984-1989, 1989-1994, 1994-1998, 1998-2003, 2003-2009. Direct cost for the current grant period: \$1,392,897
R01 Research Grant EY 05628 "Biology of Trabecular Meshwork in Health and Disease" from National Eye Institute, Principal Investigator, 1984-1987, 1989-1992, 1992-1995, 1995-2000, 2000-2005, 2005-2010. Direct cost for the current grant period: \$1,125,000
P30 Vision Research Core Grant from NEI, Cell Biology Module Director, 2003-2008. Direct cost for the grant period: 2,000,000
Grant Award "Functional Roles of Optineurin in RGC-5 Cells" from American Health Assistance Foundation, Principal Investigator, 2008-2010. Total direct cost: \$100,000
Grant Award "SiRNA Strategy to Ameliorate Transforming Growth Factor- β -Induced

Adverse Effects” from The Glaucoma Foundation, Principal Investigator, 2006.
\$34,500

Grant Award “Interaction of Optineurin with another Glaucoma Gene, Myocilin” from McGraw Foundation, Principal Investigator, 2006. \$12,500

P30 Vision Research Core Grant from NEI, Principal Investigator and Module Director, 1998-2003, Direct cost for the grant period: 1,176,600

Supplement to RO1 EY 05628 “DNA Microarray Facility” from National Eye Institute, Principal Investigator, 2001-2002. Total cost: \$350,000

P30 Vision Research Core Grant from National Eye Institute, Principal Investigator and Module Director, 1998-2003. Direct cost for the grant period: 1,176,600

Grant Award “Evaluate the influence of oxidative stress on the expression of Sp1, a transcription factor, in corneal fibroblasts” from Center of Keratoconus, 2003-2004. \$5000.

Grant Award “Molecular Characterization of Human Trabecular Meshwork, Juxtacanalicular, and Schlemm’s Canal Cells” from Glaucoma Research Foundation, Principal Investigator, 1999-2000. \$42,152

Research Award, Chinese American Ophthalmological Society, 1997.

Senior Scientific Investigator Award from the Research to Prevent Blindness Inc., New York, 1996. \$55,000

Core Grant from National Eye Institute, Module Director for Core Facility, 1985-1988, 1988-1993, 2003-2008.

Research Grant, Michigan Eye Bank and Transplantation Center, Ann Arbor, Michigan, Principal Investigator, 1990. \$10,000

Research Fund, National Keratoconus Foundation, Los Angeles, California, Principal Investigator, 1989. \$6,000

Research Fund, Illinois Society for the Prevention of Blindness, Chicago, Principal Investigator, 1988, 1989. \$5,000

Biomedical Research Small Grant, University of Illinois, 1988. \$6,000

Manpower Grant Award, Research to Prevent Blindness Inc., New York, 1986. \$20,000

Shared Instrument Grant, National Eye Institute, 1984-1985.

NATIONAL COMMITTEES AND SERVICES:

Special Member, Anterior Eye Disease Study Section, NEI, June, 2006

Member, Special Ocular Genetics Study Section, NEI, November, 2005

Special Member, Anterior Eye Disease Study Section, NEI, October, 2005

Grant Reviewer, Alberta Heritage Foundation, January, 2005

Grant Reviewer, Research Corporation, December, 2004

Member, Editorial Board, *Cornea*, 1998-2005.

Guest Member, Editorial Board, *Investigative Ophthalmology & Visual Sciences*, 1998-date.

Panel Member, Glaucoma Section, 5-year National Eye Institute Program Plan, 2003.

Member, Visual Science Special Study Section, National Eye Institute, November, 2001.

Reviewer, research grant, Fight for Sight, October, 2001.

Member, Visual Science Special Study Section, National Eye Institute, July, 2000.

Regular Member, Visual Science Study Section A, National Eye Institute, 1996-2000.

Member, Research Review Committee, Midwest Eye-Banks and Transplantation Center, 1996.

Reviewer, VA grant, 1996-1998.

Special Member, Visual Science Study Section A, National Eye Institute, 1995.
 Reviewer, research grant, Israel Science Foundation, 1995.
 Panel Member, Glaucoma "Basic Science" Section, Vision Research: A National Plan, National Eye Institute, 1994-1998.
 Consultant, Cornea Diseases Section, Vision Research: A National Plan, National Eye Institute, 1994-1998.
 Ac Hoc Member and Outside Reviewer for RO1 grants, Visual Science Study Section A, National Eye Institute, 1990-1993.
 Reviewer, VA grants and National Eye Institute fellowship grants, 1989.
 Member, Site Visit Team, Visual Science Study Section A, National Eye Institute, 1989.
 Referee, manuscripts for *American Journal of Pathology*, *Analytical Biochemistry*, *Archives of Ophthalmology*, *British Journal of Ophthalmology*, *Cornea*, *Current Eye Research*, *DNA Sequence*, *Experimental Cell Research*, *Experimental Eye Research*, *FEBS Letters*, *Genomics*, *Investigative Ophthalmology and Visual Science*, *In Vitro Cellular and Developmental Biology*, *Journal of Neuroscience*, *Molecular Vision*, *Nature Cell Biology*, *Ophthalmology*, 12-20 manuscripts/year.

PROFESSIONAL SOCIETIES:

American Association for the Advancement of Science
 American Society for Biochemistry and Molecular Biology
 American Society for Cell Biology
 Association for Research in Vision and Ophthalmology,
 Chinese American Ophthalmological Society
 International Society for Eye Research

PUBLICATIONS:

1. Meghpara BB, Nakamura H, Macsai M, Sugar J, Hidayat A, Yue BYJT and Edward D: Histopathological and immunohistochemical studies of keratectasia following laser in situ keratomileusis (LASIK). *Arch. Ophthalmol* 126:1655-1663, 2008.
2. Gorovoy M, Koga T, Shen X, Park J, Yue BYJT and Voyno-Yasenetskaya T: Downregulation of LIM kinase-1 suppresses ocular inflammation and fibrosis. *Mol Vis* 14:1951-1959, 2008.
3. Djalilian AR, Ito A, Balali S, Afshar A, Lavker RM and Yue BYJT: Downregulation of Notch signaling during corneal epithelial proliferation. *Mol Vis* 14:1041-1049, 2008.
4. Shen X, Koga T, Park BC, SundarRaj N and Yue BYJT: Rho GTPase and cAMP/PKA signaling mediates myocilin induced alterations in cultured human trabecular meshwork cells. *J Biol Chem* 283:603-612, 2008.
5. Sakai H, Shen X, Koga T, Park BC, Noskina Y, Tibudan M and Yue BYJT: Mitochondrial association of myocilin in human trabecular meshwork cells. *J Cell Physiol* 213:775-784, 2007.
6. Tiwari V, ten Dam GB, Yue BYJT, van Kuppevelt TH and Shukla D: Role of 3-O-sulfated heparan sulfate in polykaryocytes formation by corneal fibroblasts. *FEBS Lett* 581:4468-4472, 2007.
7. Nakamura H, Edward DP, Sugar J and Yue BYJT: Expression of Sp1 and KLF6 in the developing human cornea. *Mol Vis* 13:1451-1457, 2007.
8. Park BC, Tibudan M, Samaraweera M, Shen X and Yue BYJT: Interaction between two glaucoma genes, optineurin and myocilin. *Genes Cells* 12:969-979, 2007.

9. Tiwari V, Shukla SY, Yue BYJT, Liu J and Shukla D: HSV-2 entry in cultured human corneal fibroblasts is mediated by HVEM. *J Gen Virol* 88:2106-2110, 2007.
10. Miller AM, Nolan MJ, Choi J, Koga T, Shen X, Yue BYJT and Knepper PA: Lactate treatment causes NF- κ B activation and CD44 shedding in cultured trabecular meshwork cells. *Invest Ophthalmol Vis Sci* 48:1615-1621, 2007.
11. Park BC, Shen X, Samaraweera M and Yue BYJT: Studies of optineurin, a glaucoma gene: Golgi fragmentation and cell death from overexpression of wild type and mutant optineurin in two ocular cell types. *Am J Pathol* 169:1976-1989, 2006.
12. Sakai H, Park BC, Shen X and Yue BYJT: Transduction of TAT-fusion proteins into the human and bovine trabecular meshwork. *Invest Ophthalmol Vis Sci* 47:4427-4424, 2006.
13. Clement C, Tiwari V, Sacnlan PM, Valyi-Nagy T, Yue BYJT and Shukla D: A novel role for phagocytosis-like uptake in herpes simplex virus entry. *J Cell Biol* 174:1009-1021, 2006.
14. Tiwari V, Clement C, Xu D, Valyi-Nagy T, Yue BYJT, Liu J and Shukla D: Role for 3-O-sulfated heparin sulfate as the receptor for herpes simplex virus type 1 entry into primary human corneal fibroblasts. *J Virol* 80:8970-8980, 2006.
15. Park BC, Shen X, Fautsch MP, Tibudan M, Johnson DH and Yue BYJT: Optimized bacterial expression of myocilin proteins and functional comparison of bacterial and eukaryotic myocilins. *Mol Vis* 12:832-840, 2006.
16. Koga T, Koga T, Awai M, Tsutsui JI, Yue YJT and Tanihara H: Rho-associated protein kinase inhibitor, Y-27632, induces alterations in adhesion, contraction and motility in cultured human trabecular meshwork cells. *Exp Eye Res* 82:362-370, 2006.
17. Chiambaretta F, Nakamura H, Fabienne DG, Sakai H, Marceau G, Maruyama Y, Rigal D, Dastugue B, Sugar J, Yue BYJT and Sapin V: Krüppel-like factor 6 (KLF6) affects the promoter activity of the α 1-proteinase inhibitor gene. *Invest Ophthalmol Vis Sci* 47:582-590, 2006.
18. Surgucheva I, Park BC, Yue BYJT, Tomarev S and Surguchov A: Interaction of myocilin with α -synuclein affects its secretion and aggregation. *Cell Mol Neurobiol* 25:1009-1023, 2005.
19. Nakamura H, Ueda J, Sugar J and Yue BYJT: Developmentally regulated expression of Sp1 in the mouse cornea. *Invest Ophthalmol Vis Sci* 46:4092-4096, 2005.
20. Tiwari V, Clement C, Scanlan PM, Kowlessur D, Yue BYJT and Shukla D: A role for herpes virus entry mediator as the receptor for herpes simplex virus 1 entry into primary human trabecular meshwork cells. *J Virol* 79:13173-13179, 2005.
21. Ayala A, Warjecka DJ, Vaughan K, Twining SS and Yue BYJT: The fibrinolysis inhibitor α 2-antiplasmin in the human cornea. *Curr Eye Res* 30:1097-1103, 2005.
22. Knepper P, Miller AM, Choi J, Wertz R, Nolan MJ, Goossens W, Whitmer S, Yue BYJT, Ritch R, Liebmann JM, Allingham RR and Samples JR: Hypo-phosphorylation of aqueous humor sCD44 and primary open angle glaucoma. *Invest Ophthalmol Vis Sci* 46:2829-2837, 2005.
23. Nakamura H, Riley F, Sakai H, Rademaker W, Yue BYJT and Edward D: Histopathological and immunohistochemical studies of lenticules after epikeratoplasty for keratoconus. *Br J Ophthalmol* 89:841-846, 2005.
24. Choi J, Miller AM, Nolan MJ, Yue BYJT, Thotz ST, Clark AF, Agarwal N and Knepper PA: Soluble CD44 is cytotoxic to trabecular meshwork and retinal ganglion cells in vitro. *Invest Ophthalmol Vis Sci* 46:214-222, 2005.
25. Nakamura H, Chiambaretta F, Sugar J, Sapin V and Yue BYJT: Developmentally regulated expression of KLF6 in the mouse cornea and lens. *Invest Ophthalmol Vis Sci* 45:4327-4332, 2004.

26. Nakamura H, Siddiqui SS, Shen X, Malik AB, Pulido JS, Kumar NM and Yue BYJT: RNA interference targeting transforming growth factor- type II receptor suppresses ocular inflammation and fibrosis. *Mol Vis* 10:703-711, 2004.
27. Wentz-Hunter K, Shen X, Okazaki K, Tanihara H and Yue BYJT: Overexpression of myocilin in cultured human trabecular meshwork cells. *Exp Cell Res* 297:39-48, 2004.
28. Srinivas SP, Maertens C, Goon LH, Goon L, Satpathy M, Yue BYJT, Droogmans G and Nilius B: Volume-regulated anion channels in cultured bovine trabecular meshwork cells. *Exp Eye Res* 78:15-26, 2004.
29. Wentz-Hunter K, Kubota R, Shen X and Yue BYJT: Extracellular myocilin affects activity of human trabecular meshwork cells. *J Cell Physiol* 200:45-52, 2004.
30. Ueda J and Yue BYJT: Distribution of extracellular matrix elements and myocilin in the corneoscleral meshwork of human eyes. *Invest Ophthalmol Vis Sci* 44:4772-4779, 2003.
31. Wentz-Hunter K, Shen X and Yue BYJT: Distribution of myocilin, a glaucoma gene product, in human corneal fibroblasts. *Mol Vis* 9:308-314, 2003.
32. Ishibashi T, Takagi Y, Mori K, Naruse S, Nishino H, Yue BYJT and Kinoshita S: cDNA microarray analysis of gene expression changes induced by dexamethasone in cultured human trabecular meshwork cells. *Invest Ophthalmol Vis Sci* 43:3691-3697, 2002.
33. Honjo M, Tanihara H, Nishijima K, Kiryu J, Honda Y, Yue BYJT and Sawamura T: Statin inhibits leukocyte-endothelial interaction and prevents neuronal death induced by ischemia-reperfusion injury in the rat retina. *Arch Ophthalmol* 120:1707-1713, 2002.
34. Honjo M, Inatani M, Kido N, Sawamura T, Yue BYJT, Honda Y and Tanihara H: A myosin light chain kinase inhibitor, ML-9, lowers the intraocular pressure in rabbit eyes. *Exp Eye Res* 75:135-142, 2002.
35. Ueda J, Wentz-Hunter K and Yue BYJT: Distribution of myocilin and extracellular matrix components in the juxtacanalicular tissue of human eyes. *Invest Ophthalmol Vis Sci* 43:1068-1076, 2002.
36. Cheng EL, Ueda J, Wentz-Hunter K and Yue BYJT: Age independent expression of myocilin in the human trabecular meshwork. *Int J Mol Med* 10:33-40, 2002.
37. Maruyama Y, Li Y, Zhang Y, Wang X, Sugar J and Yue BYJT: Mapping of Sp1 regulation sites in the promoter of the human α 1-proteinase inhibitor gene. *J Cell Biochem* 85:482-489, 2002.
38. Wentz-Hunter K, Ueda J, Shimizu N and Yue BYJT: Myocilin is associated with mitochondria in human trabecular meshwork cells. *J Cell Physiol* 190:46-53, 2002.
39. Shen JF, McMahon T, Cheng EL, Sugar J, Yue BYJT, Anderson RJ, Begley C, Zhou J and The CLEK Study Group: Lysosomal hydrolase staining of conjunctival impression cytology specimens in keratoconus. *Cornea* 21:447-452, 2002.
40. Wentz-Hunter K, Ueda J and Yue BYJT: Myocilin, a product encoded by the glaucoma gene, interacts with itself and myosin regulatory light chain. *Invest Ophthalmol Vis Sci* 43:176-182, 2002.
41. Koh SWM and Yue BYJT: VIP stimulation of cAMP production in corneal endothelial cells in tissue and organ cultures. *Cornea* 21:270-274, 2002.
42. Ueda J, Li Y, Goh MS, Maruyama Y, Sugar J and Yue BYJT: Reporter gene construct containing 1.4-kB α 1-proteinase inhibitor promoter confers expression in the cornea of transgenic mice. *Anat Rec* 266:5-9, 2002.
43. Honjo M, Tanihara H, Inatani M, Kido N, Yue BYJT and Honda Y: Effects of protein kinase inhibitor HA1077 on intraocular pressure and outflow facility of rabbit eyes. *Arch Ophthalmol* 119:1171-1178, 2001.
44. Wentz-Hunter K, Cheng EL, Ueda J, Sugar J and Yue BYJT: Keratocan expression is increased in the stroma of keratoconus corneas. *Mol Med* 7:470-477, 2001.

45. Maruyama Y, Wang X, Li Y, Sugar J and Yue BYJT: Involvement of Sp1 element in the promoter activity of genes affected in keratoconus. *Invest Ophthalmol Vis Sci* 42:1980-1985, 2001.
46. Cheng EL, Li Y, Sugar J and Yue BYJT: Cell density regulated expression of transcription factor Sp1. *Exp Eye Res* 73:17-24, 2001.
47. Cheng EL, Maruyama I, SundarRaj N, Sugar J, Feder RS and Yue BYJT: Expression of type XII collagen and hemidesmosome-associated proteins in keratoconus corneas. *Curr Eye Res* 22:333-340, 2001.
48. Honjo M, Tanihara H, Inatani M, Kido N, Yue BYJT, Narumiya S and Honda Y: Effects of Rho-associated protein kinase inhibitor, Y-27632, on intraocular pressure and outflow facility. *Invest Ophthalmol Vis Sci* 42:137-144, 2001.
49. Maruyama I, Zhou L, Sugar J and Yue BYJT: Normal expression levels of cathepsins, protease inhibitors, and Sp1 in conjunctival tissues from patients with keratoconus. *Curr Eye Res* 21:886-890, 2000.
50. Ueda J, Wentz- Hunter K, Cheng EL, Fukuchi T, Abe H and Yue BYJT: Ultrastructural localization of myocilin in human trabecular meshwork cells and tissues. *J Histochem Cytochem* 48:1321-1329, 2000.
51. Zhou L, Cheng EL, Rege P and Yue BYJT: Signal transduction mediated by adhesion of human trabecular meshwork cells to extracellular matrix. *Exp Eye Res* 70:457-466, 2000.
52. Zhou L, Li Y and Yue BYJT: Oxidative stress affects cytoskeletal structure and cell-matrix interactions in cells from an ocular tissue – the trabecular meshwork. *J Cell Physiol* 180:182-189, 1999.
53. Sawaguchi S, Yue BYJT, Fukuchi T, Abe H, Suda K, Kaiya T and Iwata K: Collagen fibrillar network in the optic nerve head of normal monkey eyes and monkey eyes with laser-induced glaucoma - a scanning electron microscopic study. *Curr Eye Res* 18:143-149, 1999.
54. Zhou L, Maruyama I, Li Y, Cheng EL and Yue BYJT: Expression of integrin receptors in the human trabecular meshwork. *Curr Eye Res* 19:395-402, 1999.
55. Zhou L, Li Y and Yue BYJT: Alteration of cytoskeletal structure, integrin distribution, and migratory activity by phagocytic challenge in cells from an ocular tissue - the trabecular meshwork. *In Vitro Cell Dev Biol* 35:144-149, 1999.
56. Ahn CS, McMahon T, Sugar J, Zhou L and Yue BYJT: Levels of α 1-proteinase inhibitor and α 2-macroglobulin in the tear film of patients with keratoconus. *Cornea* 18:194-198, 1999.
57. Zhou L, Sawaguchi S, Twining SS, Sugar J, Feder RS and Yue BYJT: Expression of degradative enzymes and protease inhibitors in keratoconus corneas. *Invest Ophthalmol Vis Sci* 39:1117-1124, 1998.
58. Li Y, Zhou L, Twining SS, Sugar J and Yue BYJT: Involvement of Sp1 element in promoter activities of the α 1-proteinase inhibitor gene. *J Biol Chem* 273:9959-9965, 1998.
59. Zhou L, Li Y and Yue BYJT: Glucocorticoid effects on extracellular matrix proteins and integrins in bovine trabecular meshwork cells in relation to glaucoma. *Int J Mol Med* 1:339-346, 1998.
60. Zhou L, Higginbotham EJ and Yue BYJT: Effects of ascorbic acid on levels of fibronectin, laminin and collagen type I in bovine trabecular meshwork in organ culture. *Curr Eye Res* 17:211-217, 1998.
61. Sawaguchi S, Fukuchi T, Abe H, Kaiya T, Sugar J and Yue BYJT: Three-dimensional scanning electron microscopic study of keratoconus. *Arch Ophthalmol* 116:62-68, 1998.

62. Koh SWM, Yeh TH, Morris SM, Leffler M, Higginbotham EJ, Brennenman DE and Yue BYJT: Vasoactive intestinal peptide stimulation of human trabecular meshwork cell growth. *Invest Ophthalmol Vis Sci* 38:2781-2789, 1997.
63. Whitelock RB, Li Y, Zhou L, Sugar J and Yue BYJT: Expression of transcription factors in keratoconus, a cornea-thinning disease. *Biochem Biophys Res Commun* 235:253-258, 1997.
64. Whitelock RB, Fukuchi T, Zhou L, Twining SS, Sugar J, Feder RS and Yue BYJT: Cathepsin G, acid phosphatase, and α 1-proteinase inhibitor messenger RNA levels in keratoconus corneas. *Invest Ophthalmol Vis Sci* 38:529-534, 1997.
65. Zhou L, Yue BYJT, Twining SS, Sugar J and Feder RS: Expression of wound healing and stress-related proteins in keratoconus. *Curr Eye Res* 15:1124-1131, 1996.
66. Zhou L, Sugar J and Yue BYJT: Normal lysosomal enzyme levels in skin tissues of patients with keratoconus. *Cornea* 15:409-413, 1996.
67. Yue BYJT: The extracellular matrix and its modulation in the trabecular meshwork. *Surv Ophthalmol* 40:379-390, 1996.
68. Zhou L, Zhang SR and Yue BYJT: Adhesion of human trabecular meshwork cells to extracellular matrix proteins: roles and distribution of integrin receptors. *Invest Ophthalmol Vis Sci* 37:104-113, 1996.
69. Koh SWM, Smith MK, Yue BYJT, Edward RB, Newkirk C and Resau JH: Evidence of a functional VIP receptor in cultured human retinal pigment epithelium. *Curr Eye Res* 14:1009-1014, 1995.
70. Zhou L, Fukuchi T, Kawa JE, Higginbotham EJ and Yue BYJT: Loss of cell-matrix cohesiveness following phagocytosis by trabecular meshwork cells. *Invest Ophthalmol Vis Sci* 36:787-795, 1995.
71. Sawaguchi S, Yue BYJT, Abe H, Iwata I, Fukuchi T and Kaiya T: The collagen fibrillar network in the human pial septa. *Curr Eye Res* 13:819-824, 1994.
72. Sawaguchi S, Twining SS, Yue BYJT, Chang SHL, Zhou X, Loushin G, Sugar J and Feder R: α 2-Macroglobulin levels in normal human and keratoconus corneas. *Invest Ophthalmol Vis Sci* 35:4008-4014, 1994.
73. Fukuchi T, Yue BYJT, Sugar J and Lam S: Lysosomal enzyme activities in conjunctival tissues from patients with keratoconus. *Arch Ophthalmol* 112:1368-1374, 1994.
74. Twining SS, Fukuchi T, Yue BYJT, Wilson PM, Zhou X and Loushin G: α 2-Macroglobulin is present in and synthesized by the cornea. *Invest Ophthalmol Vis Sci* 35:3226-3233, 1994.
75. Twining SS, Fukuchi T, Yue BYJT, Wilson PM and Zhou X: α 1-Antichymotrypsin is present and synthesized by the cornea. *Curr Eye Res* 13:433-439, 1994.
76. Fukuchi T, Sawaguchi S, Yue BYJT, Iwata K and Kaiya T: Sulfated proteoglycans in the lamina cribrosa of normal and laser-induced glaucomatous monkey eyes. *Exp Eye Res* 58:231-44, 1994.
77. Twining SS, Fukuchi T, Yue BYJT, Wilson PM and Boskovic G: Corneal synthesis of α 1-proteinase inhibitor (α 1-antitrypsin). *Invest Ophthalmol Vis Sci* 35:458-462, 1994.
78. Sawaguchi S, Yue BYJT, Kawa JE, Chang IL, Twining SS and Meberg B: Lysosomal enzyme and inhibitor levels in the human trabecular meshwork. *Invest Ophthalmol Vis Sci* 35:251-61, 1994.
79. Ando H, Twining SS, Yue BYJT, Zhou X, Fini ME, Kaiya T, Higginbotham EJ and Sugar J: Matrix metalloproteinases and protease inhibitors in the human aqueous humor. *Invest Ophthalmol Vis Sci* 34:3541-3548, 1993.
80. Kawa JE, Higginbotham EJ, Chang IL and Yue BYJT: Effects of antiglaucoma medications on bovine trabecular meshwork cells *in vitro*. *Exp Eye Res* 57:557-565, 1993.

81. Feder RS, Jay M, Yue BYJT, Stock EL, O'Grady RB, Roth SI: Subepithelial mucinous corneal dystrophy: Clinical and histopathologic correlations. *Arch Ophthalmol* 111:1106-1114, 1993.
82. Sawaguchi S, Lam TT, Yue BYJT and Tso MOM: Effects of glycosaminoglycan-degrading enzymes on bovine trabecular meshwork in organ culture. *J Glaucoma* 2:80-86, 1993.
83. Sawaguchi S, Yue BYJT, Fukuchi T, Iwata K and Kaiya T: Age-related changes of sulfated proteoglycans in the human lamina cribrosa. *Curr Eye Res* 12:685-692, 1993.
84. Edward DP, Li JP, Sawaguchi S, Sugar J, Yue BYJT and Tso MOM: Diffuse corneal clouding in siblings with fetal alcohol syndrome. *Am J Ophthalmol* 115:484-493, 1993.
85. Sawaguchi S, Yue BYJT, Chang I, Wong F and Higginbotham EJ: Collagen type I gene expression in bovine trabecular meshwork cultures as modulated by ascorbic acid. *Cellu Mol Biol* 38:587-604, 1992.
86. Yue BYJT: Trabecular meshwork cell cultures - A recent advance in glaucoma research. *J Jpn Glaucoma Soc* 2:13-16, 1992.
87. Fini ME, Yue BYJT and Sugar J: Collagenolytic/gelatinolytic metalloproteinases in normal human and keratoconus corneas. *Curr Eye Res* 9:849-862, 1992.
88. Sawaguchi S, Yue BYJT, Fukuchi T, Iwata K and Kaiya T: Sulfated proteoglycans in the human lamina cribrosa. *Invest Ophthalmol Vis Sci* 33:2388-2398, 1992.
89. Sawaguchi S, Peng Y, Yue BYJT and Tso MOM: Effects of intracameral injection of chondroitinase ABC *in vivo*. *Arch Ophthalmol* 110:110-117, 1992.
90. Chang IL, Elnor SG, Yue BYJT, Cornicelli JA, Kawa JE and Elnor VM: Expression of modified low-density lipoprotein receptors by trabecular meshwork cells. *Curr Eye Res* 10:1101-1112, 1991.
91. Begley CG, Yue BYJT and Hendricks RL: Murine trabecular meshwork cells in tissue culture. *Curr Eye Res* 10:1015-1030, 1991.
92. Yue BYJT, Kawa JE, Chang IL, Sawaguchi S and Fishman GA: Effects of chondroitin sulfate on cultured human retinal pigment epithelial cells. *Cell Biol Int Rep* 15:365-376, 1991.
93. Sawaguchi S, Yue BYJT, Chang I, Sugar J and Robin J: Proteoglycan molecules in keratoconus corneas. *Invest Ophthalmol Vis Sci* 91:1846-1853, 1991.
94. Elnor VM, Elnor SG, Pavilack MA, Todd RF, Yue BYJT and Huber AR: Intercellular adhesion molecule-1 (ICAM-1) mediates leukocyte binding by human corneal endothelium. *Am J Pathol* 138:525-537, 1991.
95. Elnor SG, Elnor VM, Pavilack MA, Davis HR, Cornicelli JA and Yue BYJT: Human and monkey corneal endothelium expresses low density lipoprotein receptors. *Am J Ophthalmol* 111:84-91, 1991.
96. Hendricks RL, Malek TR and Yue BYJT: Expression of a P55 interleukin-2 receptor-like molecule on corneal epithelial cells. *Regional Immunol* 3:29-34, 1990.
97. Weinreb RN, Yue BYJT and Peyman GA: Effects of ultraviolet irradiation on prostaglandin E₂ production by cultured corneal stromal cells. *Exp Eye Res* 51:447-450, 1990.
98. Edward DP, Thonar EJ-MA, Yue BYJT, Srinivasan M and Tso MOM: Macular dystrophy of the cornea-A systemic disorder of keratan sulfate metabolism. *Ophthalmology* 97:1194-1200, 1990.
99. Blaylock WK, Yue BYJT and Robin J: The use of Concanavalin A to competitively inhibit *Pseudomonas aeruginosa* adherence to rabbit corneal epithelium. *CLAO J* 16:223-227, 1990.
100. Winterbotham CT, Torczynski E, Horwitz AL, Yue BYJT and Font RL: A corneal and scleral mucopolysaccharide disorder. *Am J Ophthalmol* 109:544-555, 1990.

101. Yue BYJT, Tao RV, Lee BC and Sugar J: Neutral glycosphingolipids in porcine corneas. *Curr Eye Res* 9:337-342, 1990.
102. Sawaguchi S, Twining SS, Yue BYJT, Wilson PM, Sugar J and Chan S-K: α 1-Proteinase inhibitor levels in keratoconus. *Exp Eye Res* 50:549-554, 1990.
103. Yue BYJT, Higginbotham E and Chang IL: Ascorbic acid modulates the production of fibronectin and laminin by cells from an eye tissue: Trabecular meshwork. *Exp Cell Res* 187:65-68, 1990.
104. Blair NP, Shaw WE and Yue BYJT: Glucose-6-phosphatase activity in the retina of the awake rat. *Invest Ophthalmol Vis Sci* 30:2268-2271, 1989.
105. Sawaguchi S, Yue BYJT, Sugar J and Gilboy J: Lysosomal enzyme abnormalities in keratoconus. *Arch Ophthalmol* 107:1507-1510, 1989.
106. Lee CF, Yue BYJT, Robin J, Sawaguchi S and Sugar J: Peters' Anomaly: Immunohistochemical studies. *Ophthalmology* 96:958-964, 1989.
107. Twining SS, Everse SJ, Wilson PM, Yue BYJT and Chan S-K: Localization and quantitation of α 1-proteinase inhibitor in the human cornea. *Curr Eye Res* 8:389-395, 1989.
108. Yue BYJT, Sugar J, Gilboy JE and Elvart JL: Growth of human corneal endothelial cells in culture. *Invest Ophthalmol Vis Sci* 30:248-253, 1989.
109. Yue BYJT, Panjwani N, Sugar J and Baum J: Glycoconjugate abnormalities in cultured keratoconus stromal cells. *Arch Ophthalmol* 106:1579-1583, 1988.
110. Edward D, Yue BYJT, Sugar J, Thonar EJ-MA, SundarRaj N, Stock EL and Tso MOM: Heterogeneity in macular corneal dystrophy. *Arch Ophthalmol* 106:1579-1583, 1988.
111. Joondeph BC, Peyman GA, Khoobehi B and Yue BYJT: Liposome-encapsulated 5-fluorouracil in the treatment of proliferative vitreoretinopathy. *Ophthalmic Surg* 19:252-256, 1988.
112. Yue BYJT, Sugar J and Schrode K: Histochemical studies of keratoconus. *Curr Eye Res* 7:81-86, 1988.
113. Koh SWM and Yue BYJT: Effects of agonists on the intracellular cyclic AMP concentration in monkey trabecular meshwork cells. *Curr Eye Res* 7:75-80, 1988.
114. Higginbotham EJ, Yue BYJT, Crean E and Peace J: Effects of ascorbic acid on trabecular meshwork cells in culture. *Exp Eye Res* 46:507-516, 1988.
115. Yue BYJT, Kurosawa A, Duvall J, Goldberg MF, Tso MOM and Sugar J: Nanophthalmic sclera: Fibronectin studies. *Ophthalmology* 95:56-60, 1988.
116. Yue BYJT, Kurosawa A, Elnor VM, Elvart JL and Tso MOM: Monkey trabecular meshwork cells in culture: Growth, morphologic and biochemical characteristics. *Graefes Clin Exp Arch Ophthalmol* 226:262-268, 1988.
117. Kurosawa A, Elnor VM, Yue BYJT, Elvart JL and Tso MOM: Cultured trabecular meshwork cells: Immunohistochemical and lectin-binding characteristics. *Exp Eye Res* 45:239-251, 1987.
118. Yue BYJT, Elnor VM, Elnor SG and Davis HR: Lysosomal enzyme activities in cultured trabecular meshwork cells. *Exp Eye Res* 44:891-898, 1987.
119. Yue BYJT and Elvart JL: Biosynthesis of glycosaminoglycans by trabecular meshwork cells *in vitro*. *Curr Eye Res* 6:959-967, 1987.
120. Yue BYJT, Sugar J and Schrode K: Collagen staining in corneal tissues. *Curr Eye Res* 5:559-64, 1986.
121. Yue BYJT, Duvall J, Goldberg MF, Puck A, Tso MOM and Sugar J: Nanophthalmic sclera: Morphologic and tissue culture studies. *Ophthalmology* 93:534-541, 1986.
122. Yue BYJT, Hsieh P and Baum JL: Effects of corneal extracts on cultures of rabbit corneal stromal cells. *Invest Ophthalmol Vis Sci* 27:14-19, 1986.

123. Yue BYJT and Fishman GA: Synthetic activities of cultured RPE cells from a patient with retinitis pigmentosa. *Arch Ophthalmol* 103:1563-1566, 1985.
124. Puck A, Tso MOM and Yue BYJT: Cellular deposits on intraocular lens. *Acta Ophthalmol* 63 (Suppl):54-60, 1985.
125. Fiscella R, Peyman GA, Elvart J and Yue BYJT: *In vitro* evaluation of cellular inhibitory potential of various antineoplastic drugs and dexamethasone. *Ophthalmic Surg* 16:247-9, 1985.
126. Yue BYJT, Sugar J and Benveniste K: RNA metabolism in cultures of corneal stromal cells from patients with keratoconus. *Proc Soc Exp Biol Med* 178:126-132, 1985.
127. Fei PF, Yue BYJT and Tso MOM: Effects of chronic intracameral injections of chondroitin sulfate on cat eyes. *Graefes Arch Clin Exp Ophthalmol* 222:1-8, 1984.
128. Fei PF, Yue BYJT, Lin CL and Tso MOM: Effects of chondroitin sulfate on trabecular meshwork in rabbit eyes: An electron microscopic study. *Exp Eye Res* 39:583-594, 1984.
129. Peyman GA, Stelmack T, Barrada A, Fiscella R, Greenberg D and Yue B: Toxicity of antineoplastic drug combinations in vitrectomy infusion fluid. *Ophthalmic Surg* 15:844-846, 1984.
130. Yue BYJT, Sugar J and Benveniste K: Heterogeneity in keratoconus: Possible biochemical basis. *Proc Soc Exp Biol Med* 175:336-341, 1984.
131. Yue BYJT, Lin CL and Tso MOM: Effects of chondroitin sulfate on metabolism of trabecular meshwork. *Exp Eye Res* 38:35-44, 1984.
132. Yue BYJT, Baum JL and Smith BD: Identification of collagens synthesized by cultures of normal human corneal and keratoconus stromal cells. *Biochim Biophys Acta* 755:318-325, 1983.
133. Yue BYJT and Baum JL: Studies of corneas *in vivo* and *in vitro*. *Vision Res* 21:41-43, 1981.
134. Yue BYJT, Niedra R and Baum JL: Effects of ascorbic acid on growth of corneal endothelial cells in culture. *Invest Ophthalmol Vis Sci* 19:1471-1476, 1980.
135. Baum JL, Niedra R, Davis C and Yue BYJT: Mass culture of human corneal endothelial cells. *Arch Ophthalmol* 97:1136-1140, 1979.
136. Yue BYJT, Baum JL and Silbert JE: The synthesis of glycosaminoglycans by cultures of corneal stromal cells from patients with keratoconus. *J Clin Invest* 63:545-551, 1979.
137. Yue BYJT, Baum JL and Smith BD: Collagen synthesis by cultures of stromal cells from normal human and keratoconus corneas. *Biochem Biophys Res Commun* 86:465-472, 1979.
138. Yue BYJT, Baum JL and Silbert JE: Synthesis of glycosaminoglycans by cultures of normal human corneal endothelial and stromal cells. *Invest Ophthalmol Vis Sci* 17:523-527, 1978.
139. Yue, BYJT, Baum JL and Silbert JE: The synthesis of glycosaminoglycans by cultures of rabbit corneal endothelial and stromal cells. *Biochem J* 158:567-573, 1976.
140. Jackson CM and Yue BYJT: Some effects of hydrocarbon solvent structure on the phase behavior of distearoyllecithin monolayers at the hydrocarbon/water interface in monolayer. *Adv Chem Ser* 144:202-206, 1975.
141. Taylor JAG, Mingins J, Pethica BA, *Tan BYJ and Jackson CM: Phase changes in mosaic formation in single and mixed phospholipid monolayers at the oil/water interface. *Biochim Biophys Acta* 323:157-160, 1973. (*Family name: Tan, BYJ).
142. Tu SI, *Tan BYJ and Wang JH: Synthetic model complexes for studying light-driven electron transfer in photosynthesis. *Bioinorg Chem* 1:79-95, 1971.

BOOK CHAPTERS:

Yue BYJT: Cellular mechanisms in the trabecular meshwork affecting aqueous humor outflow pathway. In: Principles and Practice of Ophthalmology. 2nd edition. Albert D and Jakobiec F, editors. W. B. Saunders Co., Philadelphia, PA. Vol. 4, pp. 2596-2613, 1999.

Yue BYJT: Cellular mechanisms in the trabecular meshwork affecting aqueous humor outflow pathway. In: Principles and Practice of Ophthalmology. 3rd edition. Albert D and Jakobiec F, editors. Elsevier, Oxford, UK. Chapter 192, pp.2457-2474, 2007.

Knepper PA and Yue BYJT: Cellular mechanisms in the trabecular meshwork affecting the aqueous humor outflow pathway. In: Ocular Disease: Mechanisms and Management. Levine LA and Albert DM, editors. Elsevier, Oxford, UK (in press).

Knepper PA, Nolan MJ and Yue BYJT: A focus on CD44 and primary open angle glaucoma. In: The Glaucoma Book. Schacknow PN and Samples JR, editors. Elsevier, London, UK (in press).

Knepper PA, Nolan MJ and Yue BYJT: Biomarkers of primary open angle glaucoma. In: The Glaucoma Book. Schacknow PN and Samples JR, editors. Elsevier, London, UK (in press).

PATENTS:

CW081, Silencing of TGF- β receptor type II expression by siRNA, published in March, 2005.

DB049, Methods for TGF- β receptor inhibitors or activin receptor-like kinase (ALK) inhibitors to treat eye diseases and wound healing conditions, provisional application filed in May, 2008.