

## **REFERENCES**

- **Alio JL, Tavlato M, De La Hoz F et al 2004.** Near vision restoration with refractive lens exchange and pseudo-accommodating and multifocal refractive and diffractive Intraocular lenses: Comparative clinical study. J Cataract Refract Surg. Dec;30(12):2494-503.
- **Artigas JM, Menezo JL, Peris C, Felipe A, Diaz-Llopis M, 2007.** Image quality with multifocal intraocular lenses and the effect of pupil size: comparison of refractive and hybrid refractive-diffractive designs. J Cataract Refract Surg. 33:2111-2117.
- **Atallah AI, Tran VT, Rao NA, 1992.** Postnatal development of the ciliary body and Pars Plana. A morphometric study in childhood. Arch Ophthalmol.110:802-5
- **Bassenett S, Missey H, Vucemilol H, 1999.** Molecular architecture of the lens fibre cell basal membrane complex. J cell sci. 112: 2155.
- **Bellucci R, 2005.** Multifocal intraocular lenses. Curr Opin Ophthalmol. 16:33-37.

- **Bencic G, Zoric-Geber M, Saric D, Corak M, Mandic Z , 2005.** Clinical importance of the lens opacities classification system III (LOCS III) in phacoemulsification. Coll Antropol. 29 Suppl 1:91-4. (English Abstract)
- **Bito L, DeRousseau C, Kaufmann P, Bito J, 1982.** Age dependent loss of accommodative amplitude in rhesus monkeys: An animal model for presbyopia. Invest Ophthalmol Vis Sci.23:23-31.
- **Blaylock JF, Si Z, Vickers C, 2006.** Visual and refractive status at different focal distances after implantation of the ReSTOR multifocal intraocular lens. J Cataract Refract Surg. 32:1464-1473.
- **Borchman D, Delamere NA, McCauley LA, Paterson CA. 1989.** Studies on the distribution of cholesterol, phospholipids and protein in the human and bovine lens. Lens Eye Toxic Res.6:703
- **Busacca A, 1955.** La physiologie du muscle ciliaire etudiee par la gonioscopie. Annales D'Oculistique .1-21 (English Abstract).

- **Capentanki Y, Smith S, Health J, 1989:** Over expression of the vimentin gene in transgenic mice inhibits normal lens cell differentiation. J cell Biol.109:1653.
- **Chang D, 2008.** Prospective functional and clinical comparison of bilateral ReZoom and ReSTOR intraocular lenses in patients 70 years or younger. J Cataract Refract Surg. 34:934-941.
- **Charman WN, 2003.** Restoring accommodation to the presbyopic eye: how do we measure success? J Cataract Refract Surg ;29:2251-54.
- **Chiam PJ, Chan JH, Aggarwal RK et al, 2006.** ReSTOR intraocular lens implantation in cataract surgery: quality of vision. J Cataract Refract Surg. 32:1459-1463.
- **Chiam PJ, Chan JH, Haider SI, Karia N, Kasaby H, Aggarwal RK, 2007.** Functional vision with bilateral ReZoom and ReSTOR intraocular lenses 6 months after cataract surgery. J Cataract Refract Surg. 33:2057-2061.
- **Choi J, Schweigerling J, 2008.** Optical performance measurement and night driving simulation of ReSTOR, ReZoom, and Tecnis multifocal intraocular lenses in a model eye. J Refract Surg.24:218-222.

- **Coleman J, 1986.** On the hydraulic suspension theory of accommodation. Trans Am Ophthalmol Soc.846-868.
- **Colin J, 1996.** Clinical results of implanting a silicone haptic anchor-plate intraocular lens. J Cataract Refract Surg.2:1286-1290.
- **Colucci - Guyon E , Portier MM, Dunia I, Paulin D, Pournin S, Babinet C. 1994:** Mice lacking vimentin develop and reproduce without an obvious phenotype. Cell. 79:679.
- **Cook CA, Koretz JF, Pfahnl A, Hyun J, Kaufman PL, 1994.** Aging of the human crystalline lens and anterior segment. Vision Res. 34:2945-54.
- **Cumming JS, 1997.** Postoperative complications and uncorrected acuities after implantation of plate haptic silicone and three-piece silicone intraocular lenses. J Cataract Refract Surg.19:263-274.
- **Cumming JS, Ritter J 1994.** The measurement of vitreous cavity length and its comparison pre- and postoperatively. Eur J Implant Refract Surg. 6:261-272.

- **Dell SJ, 2004.** Movement of the Crystalens IOL with pharmacological manipulation of accommodation. Paper presented at: The AAO/SOE Joint Meeting; October 22; New Orleans, LA.
- **Dick HB, 2005.** Accommodative intraocular lenses: current status. *Curr Opin Ophthalmol*.16:8-26.
- **Elgohary MA, Beckingsale AB 2006.** Effect of illumination of visual function after monofocal and intraocular lens implantation. *Eye*. ;20:144-149.
- **Evans RE, Bucci FA, 2007.** Bilateral multifocal cataract and lensectomy patients receiving ReZoom/ReSTOR vs. ReSTOR/ReSTOR -- long term follow-up. Program and abstracts of the Association for Research in Vision and Ophthalmology - Annual Meeting; May 6-10; Fort Lauderdale, Florida. Abstract 3121.
- **Fisher R, 1977.** The force of contraction of the human ciliary muscle during accommodation. *J Physiol*. 270: 51-74.
- **Fisher R, 1986.** The ciliary body in accommodation. *Trans Ophthalmol Soc UK*. 105:208-219.

- **Fisher R, 1987.** The mechanics of accommodation in relation to presbyopia. In: Stark L, Obrecht G, eds. Recent Research and Reviews from the Third International Symposium. New York: Professional Press : 42-44.
- **Fisher R, 1988.** The mechanics of accommodation in relation to presbyopia. Eye. 2:646-649.
- **Fisher RS, Lee A, Fowler VM, 2000:** Tropomodulin and tropomyosin mediate lens cell actin cytoskeleton reorganization in vitro. Invest Ophthalmol Vis Sci. 41:166.
- **Fitz Gerald P, 1990:** Methods for the circumvention of problems associated with the study of the ocular lens plasma membrane – cytoskeleton complex. Curr Eye Res. 9 :1083.
- **Forrester J, Dick A, Mc Menamin P, Lec W, 1996.** Anatomy of the eye and orbit. In : The eye , basic sciences in practice . London: WB Saunders:1-86.
- **Georgatos SD et al, 1997.** To beard or not to beard? Lens – specific intermediate filaments revisited. T cell Sci. 110:2629
- **Glasser A, 2001.** Letter to the Editor; Vis Res . 41:3083-87.
- **Glasser A, Kaufman PL, 1999.** The mechanism of accommodation in primates. Ophthalmology.106: 863-872.

- **Goodenough DA , Dick JS II, Lyons JE, 1980:** Lens metabolic cooperation: a study of mouse lens transport and permeability visualized with freeze – substitution autoradiography and electron microscopy. J cell Biol. : 86-576.
- **Gorin MB, Zimmermann FK, Jans AW, Thevelein JM. 1984** . The major intrinsic protein (MIP) of the bovin lens fibre membrane characterization and suture based on CDNA cloning cell: 35-49.
- **Green WR, 1996.** The uveal tract. In Spencer WH. Ophthalmic Pathology: An Atlas and textbook, 4<sup>th</sup> ed, Vol 3. Philadelphia : WB Saunders:1439-60
- **Haefliger E, Parel J, 1994.** Accommodation of an endocapsular silicone lens (Phako-Ersatz) in the aging rhesus monkey. J Ref Corneal Surg.10:550-555.
- **Haefliger E, Parel J, Fantes F, Norton E, Anderson D, Forster R, Hernandez E, Feuer W, 1987.** Accommodation of an endocapsular silicone lens (Phako-Ersatz) in the nonhuman primate. Ophthalmology. 94:471-477.
- **Hara T, Sakka Y, Sakanishi K et al, 1994.** Complications associated with endocapsular balloon implantation in rabbit eyes. J Cataract Refract Surg. 20:507-512.

- **Harding JJ , Rixon KC, Marriott FHC, 1977.** Men have heavier lenses than women of the same eye. Exp Eye Res. 25:651.
- **Hardman Lea S, Rubinstein M, Snead M, Haworth S, 1990 .** Pseudophakic accommodation? A study of the stability of capsular bag supported, one piece, rigid tripod, or soft flexible implants. Br J Ophthalmol. 74:22-25.
- **Harmer RH, 2000.** The Surgical Reversal of Presbyopia: a new procedure to restore accommodation. Ophthalmic Practice .18(5):210-14
- **Hayashi K, Hayashi H, Nakao F, Hayashi F, 2001.** Correlation between pupillary size and intraocular lens decentration and visual acuity of a zonal-progressive multifocal lens and a monofocal lens. Ophthalmology. 108:2011-2017.
- **Holladay JT, 1993.** Refractive power calculations for Intraocular lenses in the phakic eyes. Am J Ophthalmol.116:63-6.
- **Huber C ,1981.** Myopic astigmatism as a substitute for accommodation in pseudophakia. Doc Ophthalmol. 52:123.

- **Huber C, 1981.** Planned myopic astigmatism as a substitute for accommodation in pseudophakia. Am Intraocular Implant Soc .7:244.
- **Ireland M, Maisel H, 1984:** A cytoskeleton protein unique to lens fibre cell differentiation. Exp Eye Res. 38:637.
- **Javitt JC, Wang F, Tretacost DJ et al, 1997.** Outcomes of cataract extraction with multifocal intraocular lens implantation: functional status and quality of life. Ophthalmology.104:589-599.
- **Javitt JC, Steinert RF, 2000.** Cataract extraction with multifocal intraocular lens implantation: a multinational clinical trial evaluation clinical, functional, and quality-of-life outcomes. Ophthalmology. 107:2040-2048.
- **Javitt J, Brauweiler HP, Jacobi KW et al, 2000.** Cataract extraction with multifocal intraocular lens implantation: clinical, functional, and quality-of-life outcomes. Multicenter clinical trial in Germany and Austria. J Cataract Refract Surg.26:1356-1366.
- **Kaufman PL, Alm A, 2003.** Adler's Physiology of the eye, 10<sup>th</sup> edn : 214.

- **Kent D, Peng Q, Isaacs R, Whiteside S, Barker D, Apple D, 1998.** Mini-haptics to improve capsular fixation of plate haptic silicone intraocular lenses. J Cataract Refract Surg.24:666-671
- **Kistler J, Evans C, Donaldson P, Bullivant S, Bond J, Eastwood S, Roos M, Dong Y, Gruijters T, Engel A.,1995.** Ocular lens gap junctions: protein expression, assembly, and structure-function analysis. [Microsc Res Tech](#). Aug 1;31(5):347-56.
- **Koretz JF, Kaufman PL, Neider MW, Goeckner PA. 1989.** Accommodation and presbyopic in the human eye: aging of the anterior segment. Vision Res .29:1685.
- **Koretz JF, Cook CA, Kuszak JR 1994.** The zones of discontinuity in the human lens: development and distribution with age. Vision Res . 34(22):2955-62.
- **Koretz JF, Strenk SA, Strenk LM, Semmlow JL ,2004.** Scheimpflug and high – resolution magnetic imaging of the anterior segment: a comparative study. J Opt Soc Am A Opt Image Sci Vis. Mar;21(3):346-54.
- **Krag S, Andreassen TT, 2003.** Mechanical properties of the human lens capsule. Prog Retin Eye Res. 22(6):749-67.

- **Kuszak JR, Peterson KL, Brown HG, 1996.** Electron microscopic observations of the crystalline lens. Microsc Res Tech. Apr 15;33(6):441-79.
- **Kuwabara T, 1968.** Microtubules in the lens. Arch Ophthalmol.79:189.
- **Koepple C, Findl O, Menapace R, Kriechbaum K, Wirtitsch M et al, 2005.** Pilocarpine induced shift of an accommodating intraocular lens: AT-45 Crystalens. Jul;31(7):1290-7
- **Lagunowich LA, Grunwald GB, 1989.** Expression of calcium-dependent cell adhesion during ocular development: a biochemical, histochemical and functional analysis. Dev Biol. Sep;135(1):158-71.
- **Leaming DV, 1999.** Practice styles and preferences of ASCRS members-1998 survey. J Cataract Refract Surg. Jun;25(6):851-9.
- **Lee A, Fisher RS, Fowler VM, 2000:** stabilization and remodeling of the membrane skeleton during lens fiber cell differentiation and maturation. Dev Dyn. 217:57.
- **Leyland MD, Langan L, Goolfee F et al ,2002.** Prospective randomised double-masked trial of bilateral multifocal, bifocal or monofocal intraocular lenses. Eye;16:481-490.

- **Low, Harding CV, 1983.** Tight junctions in the lens epithelia of human and frog: freeze- fracture and protein tracer studies. Invest Ophthalmol Vis Sci. 24:396-402.
- **Moffat BA, Atchison DA, Pope JM. 2002.** Age – related changes in refractive index distribution and power of the human lens as measured by magnetic resonance imaging in vitro. Vis Res. 42:1683-93.
- **Mordi JA, Ciuffreda KJ., 2004.** Dynamic aspects of accommodation: age and presbyopia. Vis Res.44:591-601.
- **Moses RA, 1981.** The Pupil. In: Stanely TH. Adler’s physiology of the eye, Clinical Application, 7<sup>th</sup> ed. St Louis : CV Mosby:326-56.
- **Musil L , Beyer E , Goodenough D, 1990:** Expression of the gap junction protein connexion 43 in embryonic chick lens: molecular cloning, ultrasturctural localization, and post-translational phosphorylation, J Membr Biol: 116-63.
- **Marchini G, Pedrotti E, Sartori P, Tosi R, 2004.** Ultrasound biomicroscopic changes during accommodation in eyes with accommodating intraocular lenses: Pilot Study and hypothesis

for the mechanism of accommodation. J Cataract Refract Surg.  
30(12):2476-82.

- **Nakazawa N, Ohtsuki K, 1983.** Apparent accommodation in pseudophakic eyes after implantation of posterior chamber intraocular lenses. Am J Ophthalmol.96:435-438.
- **Niessen A, De Jong L, Van der Heijde G,1992**  
Pseudoaccommodation in pseudophakia. Eur J Implant Refract Surg.4:91-94.
- **Nijkamp MD, Dolders MGT, de Brabander J et al , 2004.**  
Effectiveness of multifocal intraocular lenses to correct presbyopia after cataract surgery: a randomized controlled trial. Ophthalmology.111:1832-1839.
- **Nishi O, Nakai Y, Yamagda Y, Mizumoto Y, 1993.**  
Amplitudes of accommodation of primate lenses refilled with two types of inflatable endocapsular balloons. Arch Ophthalmol. 111:1677-1684.
- **Olivero DK, Furcht LT, 1993 :** Type IV collagen, laminin and fibronectin promote the adhesion and migration of rabbit lens epithelial cells in vitro. Invest Ophthalmol Vis Sci.34:2825-34

- **Ostrin LA , Glasser A. 2004.** Accommodation measurement in pre-presbyopic and presbyopic population. J Cataract and Refractive Surg .30:1435-44.
- **Parel J, Gelender H, Trefers W, Norton E, 1986.** Phaco-ersatz: cataract surgery designed to preserve accommodation. Graefes Arch Clin Exp Ophthalmol. 224:165-173.
- **Park KL,1999.** Anatomy of the uvea . In : Yanof M, Duker JS (ed). Ophthalmology. Vol 3. Mosby International Ltd. London UK. 10:2.1-2.2.
- **Pepose JS, Qazi MA, Davies J et al, 2007.** Visual performance of patients with bilateral vs combination Crystalens, ReZoom, and ReSTOR intraocular lens implants. Am J Ophthalmol. 144:347-357.
- **Percival S, 1993.** Prospectively randomized trial comparing the pseudoaccommodation of the AMO ARRAY multifocal lens and a monofocal lens. J Cataract Refract Surg.19:26-31.
- **Phelps Brown N, Brown AJ, 1996.** Lens Structure. Inc Lens disorders. A clinical manual of cataract diagnosis. Oxford: Butterworth – Heinemann:32-47.

- **Rocha KM, Chalita MR, Souza CE et al, 2005.** Postoperative wavefront analysis and contrast sensitivity of a multifocal apodized diffractive IOL (ReSTOR) and three monofocal IOLs. J Refract Surg.21:S808-812.
- **Saude T, 1993.** The internal ocular media: Ocular anatomy and physiology. Oxford: Blackwell scientific. ;36-52.
- **Schachar RA, 2001.** The correction of Presbyopia. International Ophth Clinics;41(2):53-70.
- **Seland JH, 1992.** The lens capsule and zonulae. Acta Ophthalmol Suppl ;7-12.
- **Snell RS , Lemp MA, 1989.** The Eyeball, Inc: Clinical anatomy of the eye. Oxford: Blackwell scientific:119-94.
- **Souza CE, Muccioli C, Soriano ES et al, 2006.** Visual performance of AcrySof ReSTOR apodized diffractive IOL: a prospective comparative trial. Am J Ophthalmol. 141:827-832.
- **Strenk SA , 1999.** Age-related changes in human ciliary muscle and lens: A magnetic resonance imaging study. Invest Ophthalmol Vis Sci. 40(6) : 211-16
- **Strenk SA, Semmlow JL, Strenk LM, Munoz P, Gronlund-Jacob J, DeMarco JK, 1999.** Age-related changes in human

ciliary muscle and lens: A magnetic resonance imaging study. Invest Ophthalmol Vis Sci. 40(6): 1162-1169.

- **Strenk SA, Strenk LM, Koretz JF. 2005.** The mechanism of presbyopia. Prog Retin Eye Res. 2005 May;24(3):379-93. Epub 2004 Dec 19. Review.
- **Thornton S, 1986.** Lens implantation with restored accommodation. Current Canadian Ophthalmic Practice. 4:60-62.
- **Trindade F, Oliveira A, Frasson M , 1997.** Benefit of against-the-rule astigmatism to uncorrected near acuity. J Cataract Refract Surg. 23:82-85.
- **Uthoff D, Holland D, Hepper D, Gulati A, Koch L, Haigis W.** Laser interferometric measurements of accommodative changes in the position of an optic-shift intraocular lens. J Refract Surg. 2009 May;25(5):416-20.
- **Walkow T, Klemen UM, 2001.** Patient satisfaction after implantation of diffractive designed multifocal intraocular lenses in dependence on objective parameters. Graefes Arch Clin Exp Ophthalmol.239:683-687.

- **Waltz KL, 2004.** Presbyopia treatment by IOLs. Paper presented at: The XXII Congress of the European Society of Cataract and Refractive Surgeons; September 19; Paris, France.
- **Weale Ra, 2002.** Why we need reading glasses before a zimmer frame. Vis Res. 40:2233-40.
- **Weber U, Bullerkotte. J, 1998.** Cataract operation after silicone oil surgery. Oil drop adhesion to silicone lenses. Ophthalmologe. Apr;95(4):219-24(English Abstract).
- **Wirbelauer C, Karandish A, Aurich H, Pham DT. 2003.** Imaging scleral expansion bands for presbyopia with optical coherence tomography. J Cataract Refractive Surg . 29:2435-38.