

Liste wissenschaftlicher Projekte

Originalarbeiten:

1. Geiser MH, Riva ChE, Dorner GT, Diermann U, **Luksch A**, Schmetterer L, Eichler HG.
Response of choroidal blood flow in the foveal region to hyperoxia and hyperoxia-hypercapnia.
Curr Eye Res. 2000 Aug;21(2):669-76.
2. **Luksch A**, Polak K, Beier C, Polska E, Wolzt M, Dorner GT, Eichler HG, Schmetterer L.
Effects of systemic NO synthase inhibition on choroidal and optic nerve head blood flow in healthy subjects.
Invest Ophthalmol Vis Sci. 2000 Sep;41(10):3080-4.
3. **Luksch A**, Polak K, Matulla B, Dallinger S, Kapiotis S, Rainer G, Wolzt M, Schmetterer L.
Glucose and insulin exert additive ocular and renal vasodilator effects on healthy humans.
Diabetologia. 2001 Jan;44(1):95-103
4. Polak K, Schmetterer L, **Luksch A**, Gruber S, Polska E, Petternel V, Bayerle-Eder M, Wolzt M, Krebs M, Roden M.
Free fatty acids/triglycerides increase ocular and subcutaneous blood flow.
Am J Physiol Regul Integr Comp Physiol. 2001 Jan;280(1):R56-R61.
5. Jandrasits K, Polak K, **Luksch A**, Stark B, Dorner GT, Eichler HG, Schmetterer L.
Effects of atropine and propranolol on retinal vessel diameters during isometric exercise.
Ophthalmic Res. 2001 Jul-Aug;33(4):185-90.
6. Fuchsjäger-Mayrl G, Polak K, **Luksch A**, Polska E, Dorner GT, Rainer G, Eichler HG, Schmetterer L.
Retinal blood flow and systemic blood pressure in healthy young subjects.
Graefes Arch Clin Exp Ophthalmol. 2001 Sep;239(9):673-7.
7. Polak K, Petternel V, **Luksch A**, Krohn J, Findl O, Polska E, Schmetterer L.
Effect of endothelin and BQ123 on ocular blood flow parameters in healthy subjects.
Invest Ophthalmol Vis Sci. 2001 Nov;42(12):2949-2956.
8. Jandrasits K, **Luksch A**, Soeregi G, Dorner GT, Polak K, Schmetterer L.
Effect of noradrenaline on retinal blood flow in healthy subjects.
Ophthalmology 2002 Feb;109(2):291-5.
9. Polska E, Doelemeyer A, **Luksch A**, Ehrlich P, Kaehler N, Percicot CL, Lambrou GN, Schmetterer L.
Partial antagonism of endothelin 1- induced vasoconstriction in the human choroid by topical unoprostone isopropyl.
Arch Ophthalmol. 2002 Mar;120(3):348-52.
10. **Luksch A**, Maár N, Tittl M, Ergun E, Findl O, Stur M, Schmetterer L.
Evaluation of pulsatile choroidal blood flow in branch retinal vein occlusion.
Graefes Arch Clin Exp Ophthalmol. 2002 Jul;240(7):548-50.

- 11.** Polska E, **Luksch A**, Ehrlich P, Sieder A, Schmetterer L.
Measurements in the peripheral retina using LDF and laser interferometry are mainly influenced by the choroidal circulation.
Curr Eye Res. 2002 Apr;24(4):318-23.
- 12.** **Luksch A**, Garhöfer G, Imhof A, Polak K, Polska E, Dorner GT, Anzenhofer S, Wolzt M, Schmetterer L.
Effect of inhalation of different mixtures of O₂ and CO₂ on retinal blood flow.
Br J Ophthalmol. 2002 Oct;86(10):1143-7.
- 13.** Rainer G, Petternel V, Findl O, Schmetterer L, Skorpik C, **Luksch A**, Drexler W.
Comparison of ultrasound pachymetry and partial coherence interferometry in the measurement of central corneal thickness.
J Cataract Refract Surg. 2002 Dec;28(12):2142-2145.
- 14.** Polska E, **Luksch A**, Schering J, Frank B, Fuchsjager-Mayrl G, Wolzt M, Schmetterer L.
Propranolol and atropine do not alter choroidal blood flow regulation during isometric exercise in healthy humans.
Microvasc Res. 2003 Jan;65(1):39-44.
- 15.** Polak K, Polska E, Luksch A, Dorner G, Fuchsjager-Mayrl G, Findl O, Eichler HG, Wolzt M, Schmetterer L.
Choroidal blood flow and arterial blood pressure.
Eye. 2003 Jan;17(1):84-8.
- 16.** **Luksch A**, Polska E, Imhof A, Schering J, Fuchsjäger-Mayrl G, Wolzt M, Schmetterer L.
Role of NO in choroidal blood flow during isometric exercise in healthy humans.
Invest Ophthalmol Vis Sci. 2003 Feb;44(2):734-9.
- 17.** Fuchsjäger-Mayrl G, **Luksch A**, Malec M, Polska E, Wolzt M, Schmetterer L.
Role of endothelin-1 in choroidal blood flow regulation during isometric exercise in healthy humans.
Invest Ophthalmol Vis Sci. 2003 Feb;44(2):728-33.
- 18.** Polska E, Polak K, **Luksch A**, Fuchsjager-Mayrl G, Petternel V, Findl O, Schmetterer L.
Twelve hour reproducibility of choroidal blood flow parameters in healthy subjects.
Br J Ophthalmol. 2004 Apr;88(4):533-7.
- 19.** Polak K, Luksch A, Frank B, Jandrasits K, Polska E, Schmetterer L.
Regulation of human retinal blood flow by endothelin-1.
Exp Eye Res. 2003 May;76(5):633-40.
- 20.** Polska E, Ehrlich P, **Luksch A**, Fuchsjäger-Mayrl G, Schmetterer L.
Effects of adenosine on intraocular pressure, optic nerve head blood flow and choroidal blood flow in healthy humans.
Invest Ophthalmol Vis Sci. 2003 Jul;44(7):3110-4.
- 21.** Maar N, **Luksch A**, Graebe A, Ergun E, Wimpissinger B, Tittl M, Vecsei P, Stur M, Schmetterer L.
Effect of laser photocoagulation on the retinal vessel diameter in branch and macular vein occlusion.
Arch Ophthalmol. 2004 Jul;122(7):987-91.

- 22.** Luksch A, Rainer G, Koyuncu D, Ehrlich P, Maca T, Gschwandtner ME, Vass C, Schmetterer L. *Effect of nimodipine on ocular blood flow and colour contrast sensitivity in patients with normal tension glaucoma.* **Br J Ophthalmol.** 2005 Jan;89(1):21-5.
- 23.** Weigert G, Findl O, **Luksch A**, Rainer G, Kiss B, Vass C, Schmetterer L. *Effects of moderate changes in intraocular pressure on ocular hemodynamics in patients with primary open-angle glaucoma and healthy controls.* **Ophthalmology.** 2005 Aug;112(8):1337-42.
- 24.** Maar N, Ergun E, **Luksch A**, Stur M. *Treatment frequency and visual outcome in subfoveal choroidal neovascularization related to pathologic myopia treated with photodynamic therapy.* **Graefes Arch Clin Exp Ophthalmol.** 2006 Oct;244(10):1262-6.
- 25.** Luksch A, Wimpissinger B, Polak K, Jandrasits K, Schmetterer L. *ETA-receptor blockade, but not ACE inhibition, blunts retinal vessel response during isometric exercise.* **Am J Physiol Heart Circ Physiol.** 2006 Apr;290(4):H1693-8.
- 26.** Lung S, **Luksch A**, Weigert G, Georgopoulos M, Menapace R, Polska E, Garhöfer G, Findl O, Schmetterer L. *Effect of infusion volume on the ocular hemodynamic effects of peribulbar anesthesia.* **J Cataract Refract Surg.** 2006 Sep;32(9):1509-12.
- 27.** Polak K, **Luksch A**, Berisha F, Fuchsjaeger-Mayrl G, Dallinger S, Schmetterer L. *Altered nitric oxide system in patients with open-angle glaucoma.* **Arch Ophthalmol.** 2007 Apr;125(4):494-8.
- 28.** Stifter E, **Luksch A**, Menapace R. *Postoperative course of intraocular pressure after cataract surgery with combined primary posterior capsulorhexis and posterior optic buttonholing.* **J Cataract Refract Surg.** 2007 Sep;33(9):1585-90.
- 29.** Weigert G, Resch H, **Luksch A**, Reitsamer HA, Fuchsjaeger-Mayrl G, Schmetterer L, Garhofer G. *Intravenous administration of clonidine reduces intraocular pressure and alters ocular blood flow.* **Br J Ophthalmol.** 2007 Oct;91(10):1354-8. Epub 2007 May 30.
- 30.** Stifter E, Menapace R, **Luksch A**, Neumayer T, Vock L, Sacu S. *Objective assessment of intraocular flare after cataract surgery with combined primary posterior capsulorhexis and posterior optic buttonholing in adults.* **Br J Ophthalmol.** 2007 Nov;91(11):1481-4. Epub 2007 May 15.
- 31.** Stifter E, Menapace R, **Luksch A**, Neumayer T, Sacu S. *Anterior chamber depth and change in axial intraocular lens position after cataract surgery with primary posterior capsulorhexis and posterior optic buttonholing.* **J Cataract Refract Surg.** 2008 May;34(5):749-54.
- 32.** Stifter E, Menapace R, Neumayer T, **Luksch A**. *Macular Morphology after Cataract Surgery with Primary Posterior Capsulorhexis and Posterior Optic Buttonholing.* **Am J Ophthalmol.** 2008 Apr 23.

33. Rainer G, Stifter E, **Luksch A**, Menapace R.
Comparison of the effect of Viscoat and DuoVisc on postoperative intraocular pressure after small-incision cataract surgery.
J Cataract Refract Surg. 2008 Feb;34(2):253-7.

Kongreßbeiträge und Abstracts:

ADA 1999:

Polak K, **Luksch A**, Gruber S, Polska E, Schmetterer L, Krebs M, Roden M.
Effect of elevated plasma free fatty acids on ocular, skin and muscle blood flow.
Diabetes 48: 0320 Suppl. 1 1999.

ARVO 1999:

Polak K, Gruber S, **Luksch A**, Polska E, Schmetterer L, Krebs M, Roden M.
Effects of free fatty acids on ocular blood flow.
Invest Ophthalmol Vis Sci. 40 (4): 2592B467 Mar 15 1999.

EVER 1999:

Polak K, Petternel V, Krohn J, **Luksch A**, Polska E, Schmetterer L.
Effects of an endothelin A-rezeptor antagonist on ocular blood flow in man.
Ophthalmic Res. 1999;31 Suppl 1.

ARVO 2000:

Luksch A, Polak K, Dallinger S, Homayouni A, Schmetterer L.
Effects of hyperinsulinemic hyperglycemia on retinal and pulsatile choroidal blood flow in healthy subjects.
Invest Ophthalmol Vis Sci. 41 (4): 2930B28 Suppl. S Mar 15 2000.

Schmetterer L, **Luksch A**, Polak K, Polska E.
Systemic NO-synthase inhibition differentially affects choroidal and optic nerve head blood flow in healthy subjects.
Invest Ophthalmol Vis Sci 41 (4): 517 Suppl. S Mar 15 2000.

Polska EA, **Luksch A**, Ehrlich P, Polak K, Schmetterer L.
An investigation on the sampling depth of laser based methods for the assessment of ocular blood flow using 100% oxygen breathing as stimulus.
Invest Ophthalmol Vis Sci 41 (4): 2920B18 Suppl. S Mar 15 2000.

CTP 2000:

Luksch A, Polak K, Dallinger S, Schmetterer L.
Effects of hyperinsulinemic hyperglycemia on retinal and pulsatile choroidal blood flow in healthy subjects.
Br J Clin Pharmacol 2000, Abstr. 1109.

Polak K, **Luksch A**, Polska E, Schmetterer L.
Systemic NO-synthase inhibition differentially affects choroidal and optic nerve head blood flow in healthy subjects.
Br J Clin Pharmacol 2000, Abstr. 901.

EVER 2000:

Fuchsjäger-Mayrl G, Polak K, **Luksch A**, Polska E, Schmetterer L.
Retinal blood flow and systemic blood pressure in healthy young subjects.
Ophthalmic Res 2000; 32, Suppl 2.

ARVO 2001:

Luksch A, Garhöfer G, Imhof A, Polak K, Schmetterer L.
Effect of inhalation of different mixtures of O₂ and CO₂ on retinal blood flow.
Invest Ophthalmol Vis Sci 42 (4): 457 Suppl. S Mar 15 2001.

Polak K, **Luksch A**, Frank B, Jandrasits K, Schmetterer L.
Regulation of human retinal blood flow by endothelin-1.
Invest Ophthalmol Vis Sci 42 (4): 2819 Suppl. S Mar 15 2001.

Jandrasits K, **Luksch A**, Soeregi G, Dorner GT, Polak K, Schmetterer L.
Effect of noradrenaline on retinal blood flow.
Invest Ophthalmol Vis Sci 42 (4): 455 Suppl. S Mar 15 2001.

ÖOG 2001:

Luksch A, Garhöfer G, Imhof A, Polak K, Schmetterer L.
Auswirkung von Inhalation verschiedener Sauerstoff und Kohlendioxid Gasgemischen auf den retinalen Blutfluss.
Spektrum d Augenheilkunde 2001, 15(2):Abstr 16.

Jandrasits K, **Luksch A**, Söregi G, Dorner GT, Polak K, Schmetterer L.
Effekt von Noradrenalin auf den retinalen Blutfluss.
Spektrum d Augenheilkunde 2001, 15(2):Abstr 29.

Polak K, Petternel V, **Luksch A**, Polska E, Schmetterer L.
Auswirkungen der Endothelin A-Rezeptor-Blockade auf die Durchblutung in Sehnervenkopf und Choroidea.
Spektrum d Augenheilkunde 2001, 15(2):Abstr 28.

EVER 2001:

Luksch A, Maár N, Tittl M, Ergun E, Stur M, Schmetterer L.
Evaluation of vessel diameter and pulsatile choroidal blood flow in branch retinal vein occlusion.
Ophthalmic Res 2001, 33, Suppl. 1, Abstr. 282.

Frank B, Polak K, **Luksch A**, Schmetterer L.
Effects of Endothelin-1 on retinal arterial diameter.
Ophthalmic Res 2001, 33, Suppl. 1, Abstr. 167.

ARVO 2002:

Luksch A, Polska E, Imhof A, Schering J, Gabriele Fuchsjäger-Mayrl G, Wolzt M, Schmetterer L.
Role of NO in choroidal blood flow during isometric exercise in healthy humans.
Invest Ophthalmol Vis Sci 2002 43: E-Abstract 3308.

Polska EA, G Fuchsjäger-Mayrl G, A **Luksch A**, M Wolzt M, Schmetterer L.
Role of endothelin in choroidal blood flow regulation during isometric exercise in healthy humans.
Invest Ophthalmol Vis Sci 2002 43: E-Abstract 842.

ÖOG 2002:

Maár N, **Luksch A**, Graebe A, Ergun E, Tittl M, Stur M, Schmetterer L
Auswirkung der sektorialen Laserbehandlung auf den retinalen Gefäßdurchmesser bei Venenastverschluß.
Spektrum d Augenheilkunde 2002, 16(2): P60.

EVER 2002:

Luksch A, Sieder A, Zawinka C, Bolz M, Wolzt M, Schmetterer L.
Effect of cyclooxygenase inhibition and endothelin A – rezeptor blockade on hyperoxia-induced blood velocity changes in the human retina.

Ophthalmic Res 2001, 33, Suppl. 1, Abstr. 167.

ICER 2002:

Luksch A, Rainer G, Vass C, Schmetterer L.

Effect of Nimodipine on ocular blood flow and color contrast sensitivity in patients with normal tension glaucoma.

Exp Eye Res 2002, Vol 72, Suppl 2, p78.

Frank B, Polak K, **Luksch A**, Schmetterer L.

Differences in retinal vascular reactivity between smokers and non-smokers.

Exp Eye Res 2002, Vol 72, Suppl 2, p64.

IGS 2003:

Luksch A, Rainer G, Vass C, Schmetterer L.

Effect of Nimodipine on ocular blood flow and color contrast sensitivity in patients with normal tension glaucoma.

ARVO 2003:

Luksch A, Wimpissinger B, Polak K, Jandrasits K, Schmetterer L.

Influence of ACE-inhibition and ETA-receptor blockade on retinal vessel response to isometric exercise.

Invest Ophthalmol Vis Sci 2003 44: E-Abstract 3204.

ARVO 2004:

Weigert G, **Luksch A**, Resch H, Garhöfer G, Schmetterer L.

Acute ethanol effects on retinal vessel diameters.

Invest Ophthalmol Vis Sci 2004 45: E-Abstract 2610.

EVER 2004:

Luksch A, Weigert G, Maár N, Resch H, Schmetterer L.

Effects of vitamin C on hyperoxia-induced reduction of retinal blood flow.