


**PERSONAL DATA**

Name, Forename	Kropp, Martina	
Professional address	Département des Neurosciences Cliniques Service d'Ophthalmologie Experimental Ophthalmology Hôpitaux Universitaires de Genève (HUG) University of Geneva (UNIGE) Avenue de la Roseraie 64 CH-1205 Geneva	
Contact	+41 22 37 24 611 martina.kropp@unige.ch; martina.kropp@hcuge.ch	
Spoken/ written languages	German (mother tongue), English (fluent), French (spoken)	
Scopus ID	56038013100	
Orcid ID	<a href="https://orcid.org/0000-0001-6861-5851">https://orcid.org/0000-0001-6861-5851</a>	
Researcher ID	H-9260-2018	
Publons ID	<a href="https://publons.com/a/1257756/">publons.com/a/1257756/</a>	
Google Scholar ID	<a href="https://scholar.google.co.uk/citations?user=8fkKmikAAAAJ&amp;hl=en">https://scholar.google.co.uk/citations?user=8fkKmikAAAAJ&amp;hl=en</a>	
LinkedIn URL	<a href="https://www.linkedin.com/in/kropp-martina-28763888">www.linkedin.com/in/kropp-martina-28763888</a>	
ResearchGate URL	<a href="https://www.researchgate.net/profile/Martina-Kropp-3">https://www.researchgate.net/profile/Martina-Kropp-3</a>	
SciProfiles	<a href="https://sciprofiles.com/profile/63375">https://sciprofiles.com/profile/63375</a>	

**PROFESSIONAL BACKGROUND**

2021-present	Laboratory supervisor of OpEx, Dept. of Ophthalmology, UNIGE & HUG, Geneva, CH (Head: Prof. G. Thumann)
2018-2020	<i>Maître Assistante</i> (senior researcher) and Laboratory supervisor of OpEx, Dept. of Ophthalmology, UNIGE & HUG, Geneva, CH (Head: Prof. G. Thumann)
2014-2017	Post-doctoral Research Fellow, Project Manager of OpEx, Dept. of Ophthalmology, UNIGE & HUG, Geneva, CH (Head: Prof. G. Thumann)
2012-2014	Research Assistant, OpEx (Head: Prof. G. Thumann), Dept. of Ophthalmology, UNIGE & HUG, Geneva, CH (Head: Prof. F. Hafezi)
2012	Research Assistant, Dept. of Ophthalmology, Universitätsklinik RWTH Aachen University (UKA), Aachen, DE (Head: Prof. P. Walter)
2009–2011	PhD student, Dept. of Cardiology, Pulmonary Diseases & Vascular Medicine, Heinrich Heine University (HHU) & Dusseldorf University Hospital (UKD), Dusseldorf, DE (Head: Prof. M. Kelm)
2007-2009	PhD student, Dept. of Cardiology, Pulmonary Diseases & Vascular Medicine, UKA, Aachen, DE (Head: Prof. M. Kelm)
2007	Trainee, Dept. of Pathology, Group of PD Dr. rer. nat. S. Neuss-Stein, UKA, Aachen, DE (Head: Prof. R. Knüchel-Clarke)
2006	Diploma student, Institute of Biology II, RWTH Aachen University, Aachen, DE (Head: Prof. H. Wagner)
2000-2006	Student Assistant, behavioral experiments with seals, University of Cologne, DE; behavioral experiments with barn owls, supervision of practical courses and programming with "Igor", Institute for Biology II, RWTH Aachen University, Aachen, DE (Head: Prof. H. Wagner)

**FORMATION****Diploma**

2014	PhD Thesis: "Impact of Inorganic Nitrate in Cardiovascular Ischemic Disease", RWTH Aachen University, Aachen, DE (Head: Prof. H. Wagner)
2006	Diploma Thesis: Institute for Biology II, RWTH Aachen University, Aachen, DE (Head: Prof. H. Wagner)

**Other relevant training**

2021	Ophthalmic Imaging and ERG (electroretinogram) in Animals: "Investigating Retinal Structure and Function Lecture & Wet Lab" [20 CE Units], Ocuscience, Henderson, Nevada, US (virtual)
2019	26 <sup>th</sup> Munich electrophysiological course, Ludwig-Maximilian University (LMU), Munich, DE (Head: Prof. S. Priglinger)
2019	Requalification GCP (Good Clinical Practice) for Investigators, Clinical Research Center (CRC), HUG & UNIGE, Geneva, CH (Head: Prof. J. Pugin)
2018-present	Yearly continuous training from Swissethics and from the Cantonal Research Ethic Commissions of Vaud & Geneva, CH
2018	Trainee, culture of human embryonic stem cells, Max Delbrück Center for Molecular Medicine (MDC), Berlin, DE (Head: Prof. Z. Izsvák)
2018	Workshop: "Isolation Techniques in Advanced Therapy Applications", organized by EuroClone, IT, Lausanne, CH
2014	Qualification LTK module 2: "Training for Persons Responsible for Directing Animal Experiments" (equivalent to FELASA C), Institute of Laboratory Animal Science, University of Zurich, Zurich, CH (Head: Prof. T Buch)
2012	GCP for Investigators certificate, UKA, Aachen, DE
2012	FELASA B certificate: "Laboratory animal sciences & methods of animal experimentation", Institute for Laboratory Animals, UKA, Aachen, DE (Head: Prof. R.H. Tolba)
2010-2012	Selma-Meyer-Wiss Mentoring program, HHU, Büro der Gleichstellungs-beauftragten, Dusseldorf, DE
2010	Qualification for the use of Laser Doppler Perfusion Imaging and Laser doppler Perfusion monitoring devices (LDPI & LDPM), Perimed, Stockholm, SE
2010	Certificate, "Project management for scientific research", HHU, Bildungszentrum, Dusseldorf, DE
2010	Certificate, Animal experimentation according to the valid animal protection act §9 ("Fachkundenachweis gemäß §9 des geltenden Tierschutzgesetzes"), Tierversuchsanstalt, HHU, Düsseldorf, DE
1998–2006	Study of Biology, RWTH Aachen University, Aachen, DE

**DISTINCTIONS AND AWARDS**

- Dr. Gaide AMD Prize, 2022, 10'000 EUR, German Retina Society, "Co-Kultur von iPS-abgeleiteten RPE Zellen und der humanen Retina unter Tierprodukt-freien Bedingungen als Modellsystem für Toxizitäts- und Wirksamkeits-Studien in der Entwicklung innovativer AMD-Therapien".

**TEACHING****Pre-graduate except supervision** (Academic years 2018/2019 - 2021/2022: 178 h)

2021/22	<i>Cours à option: "L'œil dans tous ses états"</i> (course manager: Dr. H. Abou-Zeid), Dept. of Ophthalmology, UNIGE, CH (4 h)
2020/21	In charge of a teaching unit, Dept. of Ophthalmology, UNIGE, CH (30 h)
2020/21	Editor EAO, Dept. of Ophthalmology, UNIGE, CH (12 h)
2020/21	Training workshop for bachelor and master tutors, interactive session. Master: "Faciliter l'apprentissage des étudiant-es dans l'ARC (Apprentissage au Raisonnement Clinique)", Medicine faculty, UNIGE, CH (2 h)
2019-present	Lecture " <i>Introduction à la recherche</i> ", Dept. of Ophthalmology, UNIGE, CH (8 h/semester)
2019/20	Training workshop for bachelor and master tutors, interactive session. Master: "Donner un feedback en milieu clinique", Medicine faculty, UNIGE, CH (2 h)
2018/19	Editor EAO, Dept. of Ophthalmology, UNIGE, CH (10 h)
2000-2006	Supervision of practicals: "Tierphysiologisches Grundpraktikum" & "Morphologie & Anatomie der Tiere", Institute for Biology II, RWTH Aachen University, DE (28 h/semester, i.e. 336 h in total)

**Post-graduate except supervision** (Academic years 2017/2022: 45 h)

2022	Seminar, « 30' pour optimiser la supervision doctorale », Programme doctoral en santé globale et pôle de soutien à l'enseignement et l'apprentissage, Medicine faculty, UNIGE, CH (0.5 h)
------	---

2021-present	Responsible organizer, Research News, Dept. of Ophthalmology, HUG & UNIGE, CH (Head: Prof. G. Thumann) (4x/year, 0.5 h)
2021-present	Co-responsible person for teaching, Dept. of Ophthalmology (Responsible person: Prof. H. Steffen), HUG & UNIGE, CH (Head: Prof. G. Thumann)
2021/22	Brochure: "Delivering an effective Journal Club presentation" (4 h)
2021/22	Brochure: "Comment réaliser un projet de recherche biomédicale ?" (4 h)
2021/22	Brochure: "Teaching in ophthalmology, HUG & UNIGE – How much is needed, what counts & who is responsible?" (4 h)
2019-20	Responsible organizer, "Jeudis-en-ligne" (webinars, 2x/month, 3 h)
2017-present	Responsible organizer, Journal club (with Dr. Arian Maclès), Dept. of Ophthalmology, HUG & UNIGE, CH (Head: Prof. G. Thumann) (2x/month, 1 h)

### Supervision

2 examinations, 1 evaluation, 3 supervisions & 14 co-supervisions, 1 PREM internship supervision of 9 MD theses, 4 M.med. and 6 M.Sc.

2021-present	Co-supervision of <b>Mr. Andrea Maccari</b> (MD), OpEx, Dept. of Ophthalmology, HUG & UNIGE, CH (Head: Prof. G. Thumann)
2018-present	Co-supervision of <b>Mr. Robin Verlooven</b> (MD), OpEx, Dept. of Ophthalmology, HUG & UNIGE, CH (Head: Prof. G. Thumann)
2017-2021	Co-supervision of <b>Dr. Stéphan Tobalem</b> (MD), OpEx, Dept. of Ophthalmology, HUG & UNIGE, CH (Head: Prof. G. Thumann)
2016-present	Co-supervision of <b>Mr. Mateusz Kecik</b> (MD), OpEx, Dept. of Ophthalmology, HUG & UNIGE, CH (Head: Prof. G. Thumann)
2014-2017	Co-supervision <b>Dr. Shuwei Tian</b> (MD), OpEx, Dept. of Ophthalmology, HUG & UNIGE, CH (Head: Prof. G. Thumann)
2012- present	Co-supervision of <b>Ms. Laura Schwerm</b> (MD), OpEx, Dept. of Ophthalmology, UKA, DE (Head: Prof. P. Walter)
2012-2017	Co-supervision of <b>Dr. Katharina Morawa</b> (MD), OpEx, Dept. of Ophthalmology, UKA, DE (Head: Prof. P. Walter)
2009-2011	Co-supervision of <b>Dr. Andreas Schicho</b> (MD), Dept. of Cardiology, Pulmonary Diseases & Vascular Medicine, HHU & UKD, DE (Head: Prof. M. Kelm)
2008-2012	Co-supervision of <b>Dr. Michael Niessen</b> (MD), Dept. of Cardiology, Pulmonary Diseases & Vascular Medicine, UKA, DE (Head: Prof. M. Kelm)
2022	Training supervisor of <b>Ms Lina Leghnam</b> (M.Sc. 1, Biotechnologies), UNIGE & University of Grenoble-Alpes, CH & FR (Head: Prof. G. Thumann)
2021-2022	Supervision of <b>Ms. Idil Oezsahin</b> (M.med.), OpEx, Dept. of Ophthalmology, HUG & UNIGE, CH (Head: Prof. G. Thumann)
2021-2022	Co-supervision of <b>Mr. Trong-Tin Kevin Steve Vo</b> (M.med.), OpEx, Dept. of Ophthalmology, HUG & UNIGE, CH (Head: Prof. G. Thumann)
2020-2021	Supervision of <b>Mr. Maximiliano Giro-Larraz</b> (M.med.), OpEx, Dept. of Ophthalmology, HUG & UNIGE, CH (Head: Prof. G. Thumann)
2021-present	Co-supervision of <b>Mr. Mohit</b> (M.Sc., Biology), OpEx, Dept. of Ophthalmology, HUG & UNIGE, CH (Head: Prof. G. Thumann)
2020-2022	Co-supervision of <b>Mr. Nathan Breuillard</b> (M.Sc., Biology), OpEx, Dept. of Ophthalmology, HUG & UNIGE, CH (Head: Prof. G. Thumann)
2019	Co-supervision of <b>Ms. Hajer Zedira</b> (M.Sc., Health Engineering), <i>Université Grenoble Alpes</i> , Fr, & OpEx, Dept. of Ophthalmology, HUG & UNIGE, CH (Head: Prof. G. Thumann)
2016	Co-supervision of M.Sc. <b>Ms. Cristina Leroy-Ciocanea</b> (M.Sc., Neurosciences), OpEx, Dept. of Ophthalmology, HUG & UNIGE, CH (Head: Prof. G. Thumann)
2008-2012	Supervision & examination of M.Sc. <b>Ms. Dandan Lou</b> (M.Sc., Applied Life Sciences and Techniques), Dept. of Cardiology, Pulmonary Diseases & Vascular Medicine, UKA, DE (Head: Prof. M. Kelm)
2021	Evaluation of thesis of Mr. <b>Thomas Delmi</b> (M.med.), OpEx, Dept. of Ophthalmology, HUG & UNIGE, CH (Director: Prof. G. Thumann)
2021	Examination of <b>Ms. Sylvie Chantal Denkinge</b> (M.Sc., Neurosciences), Dept. of Psychology, UNIGE, CH (Director: Prof. D. Bavelier)
2018	Supervision of <b>Mr. Maximiliano Giro-Larraz</b> (PREM fellowship), OpEx, Dept. of Ophthalmology, HUG & UNIGE, CH (Director: Prof. G. Thumann)

**OFFICIAL POSITIONS / ADMINISTRATION**

2021-present	Coordinator for transplants, Dept. of Ophthalmology, HUG, CH (Head: Prof. G. Thumann)
2020-present	Co-responsible person for teaching, Dept. of Ophthalmology, HUG, CH (Head: Prof. G. Thumann)
2020-present	Responsible person for Quality Assurance, OpEx, <i>Laboratoire de Transplantation et Thérapie Cellulaire</i> (L TTC), HUG, CH (Head: Prof. J. Villard)
2018-2020	Responsible person for Quality Control, OpEx, L TTC, HUG, CH (Head: Prof. J. Villard)
2016-present	Deputy of Prof. G Thumann for the stem cell committee, UNIGE, CH
2017-present	Coordinator for organizing conferences and events, Dept. of Ophthalmology, HUG, CH (Head: Prof. G. Thumann)

**MEMBERSHIPS**

European Society of Gene & Cell Therapy (ESGCT), Association for Research in Vision and Ophthalmology (ARVO), International Society for Stem Cell Research (ISSCR), Schweizerische Gesellschaft für Versuchstierkunde (SGV), Schweizerische Gesellschaft für Ophthalmologie (SOG)

**ORGANIZED CONFERENCES AND EVENTS****Scientific**

2022	European society for international ophthalmology (ESIO) conference
2019-present	"Journée de la rétine" (annually)
2019-present	"Journée des ophtalmologues romands" (annually)
2019-present	"Colloque de printemps du service d'ophtalmologie des HUG" (annually)
2019-present	European Society for International Ophthalmology (ESIO) Conference
2016	TargetAMD symposium, "Lost in translation - the long way to bring non-viral gene therapy into clinic"

**For the public**

2020	Public session "Jeunesse avancée" (cancelled because of COVID-19)
2019	Salon "Les automnales", booth of the Dept. Ophthalmology, HUG, CH
2019	"En route ensemble depuis 40 ans" with Retina Suisse, Public information day on retinal diseases and their therapies (cancelled by Retina Suisse because of limited interest)
2019	WHO collaborators' screening, WHO Geneva, CH
2018	Public session "Chirurgie réfractive", UNIGE & HUG, CH
2018	Public session "Journée de la vision", UNIGE & HUG, CH
2017	Public session "Vision et diabète", UNIGE & HUG, CH
2016	Public session "DMLA", with Retina Suisse, UNIGE & HUG, CH
2015	Public session "Retinal diseases: The importance of educated and active patients", WHO Geneva, CH
2013	Public session "Age-related macular degeneration", UNO Geneva, CH
2014	Public session "Diabetic Retinopathy", UNO Geneva, CH
2012-present	Public session "Information aux patients DMLA", UNIGE & HUG, CH

**TECHNICAL AND SCIENTIFIC DUTIES****Reviewer**

Polymers; IJMS; Cells; Current Trends in Ophthalmology and Visual Sciences; Journal of Infectious Diseases Diagnosis and Treatment; Journal of Clinical Medicine; Ophthalmology Research and Reports; Toxins; Genes; Medicina; Antibiotics; Journal of Advances in Medicine and Medical Research; Annals of Eye Science; BioTech; Biotechnology & Bioengineering; Pharmaceuticals; Antioxidants, Biomolecules.

**Appointed Reviewer**

2020-present	SWISS OphthAWARD, SOG, CH
2022	Agence nationale de la recherche (ANR), Call CE36 - Santé publique, santé et société, FR

**Committees**

- Cantonal Ethical Commission for Research in humans of Geneva (*Commission Cantonale d'Ethique de la Recherche sur l'être humain*, CCER), CH.

**Editor**

- Academic editor, Medicines.
- Guest co-editor for the special issue "10th Anniversary of Biomedicines—Gene Therapy in Ophthalmology Disorders", Biomedicines.

**FUNDING**

- ARVO Foundation for eye research, ARVO and Eye bank association of America, private funding, 2021, 5'000 USD, PI M. Kropp, "Animal product-free culture of human transfected Retinal (RPE) and Iris Pigment Epithelial (IPE) cells for cell therapy".
- ARVO Foundation for eye research, ARVO and Eye bank association of America, private funding, 2021, 5'000 USD, PI M. Kropp, "iPS-derived RPE cell & human retina co-culture for toxicity and potency assays in intraocular medicine".
- LHW foundation, private funding, PI (shared with Prof. G. Thumann), 06/2020-05/2023, 50'000 CHF, "Subtype-specific molecular patterns in tear fluid of diabetic patients with and without retinopathy – predictive tool prototype".

**Contribution to funding**

- SNSF (Swiss National Science Foundation), grant no. 189341, 11/2019-12/2023, national funding, 572'000 CHF, PI G. Thumann, "Integrative, transposon-based vectors in ocular gene therapy – safety improvement and in-process quality control". Contribution: involved in writing the grant proposal, project management, animal experimentation direction.
- ProVisu foundation, private funding, 02/2017-present, 400'000 CHF, PI G. Thumann, "Funding of the clinical trial TargetAMD\_IPE" and "Persistence of efficacy of tIPE: a validated GMP-grade cell-based gene therapy product to treat neovascular AMD, proved using high-sensitivity methods". Contribution: involved in writing the grant proposal, project management, animal experimentation direction.
- SNSF, grant no. 160195, national funding, 01/2016-06/2019, 474'000 CHF, PI G. Thumann, "Transposon-based gene cell therapy in the treatment of dry macular degeneration". Contribution: involved in writing the grant proposal, project management, animal experimentation direction.
- AURIS foundation, private funding, 12/2017, 12'000 CHF, PI G. Thumann, "In vivo electroporation system" (equipment). Contribution: involved in writing the grant proposal.
- Schmieder-Bohrisch foundation, private funding, 11/2018-10/2020, 40'000 CHF, PI G. Thumann, "In vivo transfection of retinal cells to treat neuroretinal degeneration". Contribution: involved in writing the grant proposal.

**PATENTS (co-inventor)**

- |                |   |
|----------------|---|
| Patent pending | "Methods and compositions for improving eye health", US No: 10,780,068  |
| Patent pending | "Methods and composition for diagnosing and treating glaucoma", Continuation-in-part of the above application No: 16/938, 628 and PCT / US2018 / 030988 |

**LIST OF PUBLICATIONS**

As listed in Google scholar with in addition, 6 invited conferences. Impact factors [IF] are those of 2020.

**Citation Report: google scholar**

Total number of articles:	63
Total number of citations with auto-citations	309
H index	9
i10 index	8

**Articles submitted or in preparation**

1. **Kropp M**, Mohit M, Leroy C, Schwerm L, Harmening N, Bascuas T, Johnen A, Walter P, Thumann G: Miniaturized human retina organotypic culture as 3R-compliant model system to analyze efficiency and safety of innovative retinal therapy approaches. *Biology*. In preparation. [IF 5.079]
2. **Kropp M**, Harmening N, Bascuas T, Johnen S, van den Berg J, Aranda P, Ronchetti M, Cadossi R, Scherman D, Ivics Z, Marie C, Izsvák Z, Thumann G: GMP-grade Manufacturing and Quality Control of an Autologous Non-Viral Gene Therapy Medicinal Product for Personalized Treatment of Age-Related Macular Degeneration. *Personalized Medicine*. In preparation. [IF 4.945]

**Peer-reviewed articles**

3. Bascuas T, Zedira H, **Kropp M**, Harmening N, Asrih M, Prat-Souteyrand C, Tian S, Thumann G: Human retinal pigment epithelial cells overexpressing the neuroprotective factors PEDF and GM-CSF to treat retinal neurodegeneration. *Curr Gene Ther*. 2022, 22(2):168-183. [IF 4.391]
4. Tobalem\* S, Kecik\* M, Midroit M, Scaldino D, Tardy S, Bascuas T, Harmening N, Scapozza L, Thumann G, **Kropp M**: Functional and anatomical characterization of atrophic Age-related macular degeneration in an aged mouse model. *JOR*. 2021, 4(2): 128-152. [IF 1.200]
5. Thumann G, Sorgente N, **Kropp M**, Jonescu-Cuypers C: Tolbutamide eye drops increase aqueous humor outflow and lower intraocular pressure: A proof of concept for glaucoma treatment. *JOR*. 2021, 4(2): 114-127. [IF 1.200]
6. Schroeter A, **Kropp M**, Cvejic Z, Thumann G, Pajic B: Comparison of femtosecond laser-assisted and ultrasound-assisted cataract surgery with focus on endothelial analysis. *Sensors*. 2021, 21: 996-1013. [IF 3.576]
7. Bascuas\* T, **Kropp\* M**, Harmening N, Wong BM, Johnen S, Izsvák Z, Thumann G: Isolation, Culture, and Genetic Engineering of Mammalian Primary Pigment Epithelial Cells for Non-Viral Gene Therapy. *JoVE*. 2021, 168: e62145, DOI: 10.3791/62145. [IF 1.355]
8. Bascuas T, **Kropp M**, Harmening N, Asrih M, Izsvák Z, Thumann G: Induction and analysis of oxidative stress in Sleeping Beauty transposon-transfected human retinal pigment epithelial cells. *JoVE*. 2020, 166: e61957, DOI: 10.3791/61957. [IF 1.355]
9. Tobalem S, Weinberger A, **Kropp M**, Malclès A, Jonescu-Cuypers C, Souteyrand G, Thumann G: Chorioretinal toxicity of the perfluorooctane ALA® OCTA: Results from 48 surgical procedures in Geneva. *Am J Ophthalmol*. 2020, 218: 28-39. [IF 5.258]
10. Hernandez M, Recalde S, Garcia-Garcia L, Bezunartea J, Miskey C, Johnen S, Diarra S, Sebe A, Rodriguez-Madoz JR, Pouillot S, Marie C, Izsvák Z, Scherman D, **Kropp M**, Prosper F, Thumann G, Ivics Z, Garcia-Layana A, Fernandez-Robredo P: Preclinical Evaluation of a Cell-Based Gene Therapy Using the Sleeping Beauty Transposon System in Choroidal Neovascularization. *Mol Ther Methods Clin Dev*. 2019, 15: 403-417. [IF 6.698]
11. Pastor M, Johnen S, Harmening N, Quiviger M, Pailloux J, **Kropp M**, Walter P, Ivics Z, Izsvák Z, Thumann G, Scherman D, Marie C: The antibiotic-free pFAR4 vector paired with the *Sleeping Beauty* transposon system mediates efficient transgene delivery in human cells. *Mol Ther Nucleic Acids*. 2018, 11: 57-67. [IF 8.886]
12. Garcia-Garcia L, Recalde S, Hernandez M, Bezunartea J, Rodriguez-Madoz JR, Johnen S, Diarra S, Marie C, Izsvák Z, Ivics Z, Scherman D, **Kropp M**, Thumann G, Prosper F, Fernandez-Robredo P, Garcia-Layana A: Long-Term PEDF Release in Rat Iris and Retinal Epithelial Cells after Sleeping Beauty Transposon-Mediated Gene Delivery. *Mol Ther Nucleic Acids*. 2017, 9: 1-11. [IF 8.886]
13. Thumann G, Harmening N, Prat-Souteyrand C, Marie C, Pastor M, Sebe A, Miskey C, Hurst LD, Diarra S, **Kropp M**, Walter P, Scherman D, Ivics Z, Izsvák Z, Johnen S: Engineering of PEDF-Expressing Primary Pigment Epithelial Cells by the SB Transposon System Delivered by pFAR4 Plasmids. *Mol Ther Nucleic Acids*. 2017, 6: 302-314. [IF 8.886]

14. Johnen S, Djalali-Talab Y, Kazanskaya O, Moller T, Harmening N, **Kropp M**, Izsvák Z, Walter P, Thumann G: Antiangiogenic and Neurogenic Activities of SB-Mediated PEDF-Transfected RPE Cells In Vitro and In Vivo. *Biomed Res Int*. 2015, 2015: Article ID: 863845, DOI: 10.1155/2015/863845. [IF 3.411]
15. Stolba U, Ansari-Shahrezaei S, Hagen S, Stattin M, Schmid S, **Kropp M**, Harmening N, Thumann G, TargetAMD Group: Neovascular AMD in Austria - Expert review and introduction to the TargetAMD approach. *Spektrum der Augenheilkunde*. 2017, 31(5): 206-211. [IF 0.177]
16. **Kropp M**, Morawa K, Mihov G, Salz A-K, Harmening N, Franken A, Kemp A, Dias AA, Thies J, Johnen S, Thumann G: Biocompatibility of Poly(ester amide) (PEA) Microfibrils in Ocular Tissues. *Polymers*. 2014, 6: 243-260. [IF 4.329]
17. Hendgen-Cotta UB, Lüdike P, Totzeck M, **Kropp M**, Schicho A, Stock P, Rammos C, Niessen M, Heiss C, Lundberg JO, Weitzberg E, Kelm M, Rassaf T: Dietary Nitrate Supplementation Improves Revascularization in Chronic Ischemia. *Circulation*. 2012, 126(16): 1983-1992. [IF 29.690]
18. Kehmeier ES, Lepper W, **Kropp M**, Heiss C, Hendgen-Cotta UB, Balzer J, Neizel M, Meyer C, Merx MW, Verde PE, Ohmann C, Heusch G, Kelm M, Rassaf T: TNF- $\alpha$ , myocardial perfusion and function in patients with ST-Segment elevation myocardial infarction and primary percutaneous coronary intervention. *Clin Res Cardiol*. 2012, 101(10): 815-827. [IF 5.460]
19. Kehmeier ES, **Kropp M**, Kleinbongard P, Lauer T, Balzer J, Merx MW, Heusch G, Kelm M, Lepper W, Rassaf T: Serial measurements of whole blood nitrite in an intensive care setting. *FRBM*. 2008, 44(11): 1945-1950. [IF 7.376]

### Proceedings

20. **Kropp M**, Harmening N, Conti A, Sealy G, Breuillard N, Mohit M, Maccari A, Bascuas-Castillo T, Thumann G: A transposon-based gene therapy approach to treat avascular Age-Related Macular Degeneration (AMD) using mRNA transposase: results of the *in vivo* local and systemic toxicity study. 29<sup>th</sup> annual Congress of the European Society of Gene and Cell Therapy (ESGCT), 11-14 Oct. 2022, Edinburgh, UK. Meeting abstract (submitted).
21. Maccari A, **Kropp M**, Harmening N, Bascuas-Castillo T, Breuillard N, Mohit M, Sealy G, Thumann G: Safety study for a non-viral gene therapy approach to treat dry AMD: *In vitro* exclusion of tumorigenicity of IPE cells transfected with the genes coding for PEDF and GM-CSF. 29<sup>th</sup> annual Congress of the European Society of Gene and Cell Therapy (ESGCT), 11-14 Oct. 2022, Edinburgh, UK. Meeting abstract (submitted).
22. Breuillard N, Bascuas T, Harmening N, Sealy G, Mohit M, Thumann G, **Kropp M**: Efficiency analysis of a gene therapy approach for AMD in non-virally transfected IPE cells from human, pig and rabbit comparing long-term gene and protein expression. 115<sup>th</sup> Annual Meeting of SSO-SGO: 24 -26 Aug. 2022, Bâle, Switzerland. Meeting abstract: Poster: 8442.
23. Mohit M, Breuillard N, Harmening N, Bascuas T, Conti A, Sealy G, Thumann G, **Kropp M**: Up-scaling and humanization of retinal organotypic culture as a model for intraocular efficiency and toxicity analyses. *IOVS*. 2022, 63: 3161 – F0435.
24. Breuillard N, Bascuas T, Harmening N, Sealy G, Mohit M, Thumann G, **Kropp M**: Comparison of long-term gene expression and protein secretion of non-virally transfected Retinal Pigment Epithelial (RPE) cells from human, pig and rabbit for preclinical efficiency analyses. *IOVS*. 2022, 63: 3173 – F0447.
25. Thumann G, Harmening N, Bascuas T, Breuillard N, Mohit M, Conti A, **Kropp M**: *In vivo* toxicity study in rabbits to prove tolerability of non-virally transfected Retinal (RPE) and Iris (IPE) Pigment Epithelial cells using the Sleeping Beauty transposon system to treat age-related macular degeneration. Retinal World Congress annual meeting. 2022, E-Live. E-poster.
26. Thumann G, Harmening N, Bascuas T, Breuillard N, Mohit M, Sealy G, Conti A, **Kropp M**: Safety and efficiency *in vitro* and *in vivo* data of non-virally transfected Pigment Epithelial cells using the Sleeping Beauty transposon system to treat age-related macular degeneration. XXXIII<sup>rd</sup> Meeting of the Club Jules Gonin. 2022, Dubrovnik, Croatia. Meeting abstract: Oral presentation.
27. Jukic T, Kecik M, **Kropp M**, Jonescu-Cuypers C, Thumann G: Anatomical and functional outcome in management of expulsive haemorrhage. XXXIII<sup>rd</sup> Meeting of the Club Jules Gonin. 2022, Dubrovnik, Croatia. Meeting abstract: Poster.
28. **Kropp M**, Tobalem S, Kecik M, Midroit M, Tardy S, Conti A, Harmening N, Bascuas T, Scapozza L, Thumann G: Improved transferability of a disease model for avascular age-related macular degeneration (AMD) to evaluate cell-based gene therapies using aged mice. ISSCR Annual Meeting. 2020, Boston, USA. Meeting abstract: Poster.
29. **Kropp M**, Ghezzi D, Conti A, Jonescu-Cuypers C, Thumann G: Surgical *in vivo* model in rabbits to test chronically self-opening intra-neural electrodes for optic nerve stimulation. Artificial Vision congress. 2019, Aachen, Germany. Meeting abstract: Doc19artvis24. Oral presentation.

30. Verlooven R, Conti A, Harmening N, Bascuas T, Thumann G, **Kropp M**: Establishment of a xeno-free culture of retinal pigment epithelial (RPE) cells to produce personalized iPS-derived and genetically modified RPE cells to treat age-related macular degeneration (AMD). ISSCR Symposium "From Stem Cell Biology to New Therapies". 2019, Toronto, Canada. Meeting abstract: Poster.
31. Bascuas T, Harmening N, **Kropp M**, Sealy G, Conti A, Wong BM, Zedira H, Thumann G: Non-virally transfected primary human pigment epithelium cells overexpressing the oxidative stress reduction factors PEDF and GM-CSF to treat retinal neurodegeneration. Human Gene Ther. 2019, 30(11): A112-A113. Meeting abstract: P318. Poster.
32. Harmening N, Wong BM, Sealy G, Bascuas T, **Kropp M**, Izsvák Z, Thumann G: Establishment of an *in vivo* protocol for non-viral gene delivery to ocular tissue. Human Gene Ther. 2019, 30(11): A112-A112. Meeting abstract: P317. Poster.
33. **Kropp M**, Zedira H, Conti A, Harmening N, Bascuas T, Thumann G: *Ex vivo* efficacy study to evaluate neuroprotection in a retinal organotypic culture system: A gene therapeutic strategy to deliver growth factors to the retina to treat avascular age-related macular degeneration. Human Gene Ther. 2019, 30(11): A111-A112. Meeting abstract: P315. Poster.
34. Thumann G, **Kropp M**, TargetAMD consortium: tIPE – a GMP-grade non-viral gene therapy medicinal product (GTMP) to treat nvAMD. 22nd Annual Meeting of the ASGCT. Washington DC, USA. Mol Ther. 2019, 27(4) suppl.1: 317. Meeting abstract: 674. Poster.
35. **Kropp M**, Harmening N, Kecik M, Chronopoulos A, Conti A, Bautzová T, Thumann G: Challenges in GTMP process validation for a non-viral gene therapy. IOVS. 2018, 59(9): 4543. Meeting abstract: Poster.
36. **Kropp M**, Harmening N, Bascuas T, Sealy G, Conti A, Johnen S, Izsvák Z, Marie C, Scherman D, Ronchetti M, Aranda P, van den Berg J, Thumann G: GMP-grade production of tIPE, a cell-based gene therapy product to treat neovascular age-related macular degeneration (nvAMD) developed in the TargetAMD project. Human Gene Ther. 2018, 29(12): A69. Meeting abstract: P142. Poster.
37. Fernandez P, Recalde S, Hernandez M, Garcia-Garcia L, Bezunartea J, Rodriguez JR, Marie C, Scherman D, Izsvák Z, **Kropp M**, Johnen S, Thumann G, Garcia-Layana A: Efficient choroidal neovascularization reduction by Sleeping Beauty transposon-mediated PEDF gene delivery in rat iris and retinal pigment epithelial cells by using a clinical electroporator. IOVS. 2018, 59(9): 4. Meeting abstract: 223. Poster.
38. Cai H, Johnen S, Harmening N, **Kropp M**, Marie C, Scherman D, Ivics Z, Thumann G, Izsvák Z: While no barrier insulator function is required for stable transgene expression from Sleeping Beauty transposon, 6CTCF enhancer blocker improves its biosafety for therapeutical applications. Human Gene Ther. 2018, 29(12): A161. Meeting abstract: P468. Poster.
39. Bascuas T, **Kropp M**, Harmening N, Tobalem S, Midroit M, Conti A, Asrih M, Sealy G, Thumann G: Non-viral transfections with the neuroprotective factors PEDF and GM-CSF reduces oxidative stress in human pigment epithelium cells *in vitro* offering a promising approach to treat avascular age-related macular degeneration. Human Gene Ther. 2018, 29(12): A88. Meeting abstract: P205. Poster.
40. Johnen S, Harmening N, **Kropp M**, Bascuas T, Ronchetti M, Marie C, Scherman D, Ivics Z, Izsvák Z, Walter P, Thumann G: Genetic modification of freshly isolated primary human pigment epithelial cells to treat nvAMD. Human Gene Ther. 2018, 29: A91-A92. Meeting abstract: Poster.
41. **Kropp M**, Harmening N, Bautzová T, Asrih M, Sealy G, Johnen S, Izsvák Z, Marie C, Scherman D, van den Berg J, Thumann G: Development of GMP-compliant production of freshly isolated and transfected iris pigment epithelial (IPE) cells to treat age-related macular degeneration (AMD). Human Gene Ther. 2017, 28(12): A118. Meeting abstract: P371. Poster.
42. Thumann G and TargetAMD consortium: Transposon-based, targeted *ex vivo* gene therapy to treat age-related macular degeneration – a summary of the pre-clinical data. 25th ESGCT and DG-GT annual congress. 2017, Berlin, Germany. Invited talk.
43. **Kropp M**, Harmening N, Chronopoulos A, Conti A, Bautzová T, Weinberger A, Izsvák Z, Marie C, Scherman D, Thumann G: Process validation of a GMP-grade Advanced Therapy Medicinal Product for a Cell-Based Gene Therapy. Annual meeting of the SOG. 2017, Davos, Switzerland. Meeting abstract: Poster.
44. **Kropp M**, Chronopoulos A, Conti A, Harmening N, Pouillot S, Izsvák Z, Marie C, Scherman D, Thumann G: Safety studies for cell-based gene therapy (TargetAMD project): *in vivo* exclusion of tumorigenicity and proof of cell product quality. Human Gene Ther. 2016, 27(11): A120-A120. Meeting abstract: P245. Poster.
45. Thumann G, **Kropp M**, Harmening N: Transposon-based, targeted *ex vivo* gene therapy to treat age-related macular degeneration: the TargetAMD project. Human Gene Ther. 2016, 27(11): A123. Meeting abstract: P255. Poster.



46. **Kropp M**, Chronopoulos A, Conti A, Harmening N, Pouillot S, Marie C, Scherman D, Izsvák Z, Aranda P, Fernandez V, Thumann G: Results of a biodistribution study of Venus transfected pigment epithelial cells transplanted subretinally in rabbits. IOVS. 2016, 57(12): 3. Meeting abstract: 1187. Poster.
47. Harmening N, Sealy G, Johnen S, **Kropp M**, Ronchetti M, Aranda P, Marie C, Scherman D, Izsvák Z, Thumann G: Translation of GLP-grade electroporation of primary pigment epithelial cells to GMP-grade GTMP manufacturing for clinical use. Human Gene Ther. 2016, 27(11): A108. Meeting abstract: P207. Poster.
48. Harmening N, Sealy G, **Kropp M**, Marie C, Scherman D, Ronchetti M, Aranda P, Fernandez V, Johnen S, Izsvák Z, Thumann G: Optimized non-viral transfection of human RPE and IPE cells used for a gene-therapeutic treatment of neovascular AMD. IOVS. 2016, 56(7): 3. Meeting abstract: 4432. Poster.
49. Prat-Souteyrand C, Harmening N, **Kropp M**, Sealy G, Izsvák Z, Scherman D, Marie C, Johnen S, Thumann G: Human PEDF optimized gene for transposon-based gene therapy to treat age-related macular degeneration. IOVS. 2016, 57(12): 3. Meeting abstract: 1172. Poster.
50. Thumann G, **Kropp M**, Harmening N, TargetAMD consortium: Transposon-based, targeted ex vivo gene therapy to treat age-related macular degeneration: the TargetAMD project. IOVS. 2015, 56(7): 2. Meeting abstract: 1820. Poster.
51. **Kropp M**, Tian S, Harmening N, Johnen S, Scherman D, Marie C, Izsvák Z, Thumann G: Over-expression of PEDF by PEDF-transfected primary pigment epithelial cells does not induce tumorigenicity. Human Gene Ther. 2015, 26(10): A81. Meeting abstract: P184. Poster.
52. **Kropp M**, Harmening N, Johnen S, Tian S, Scherman D, Marie C, Izsvák Z, Thumann G: pFAR4 miniplasmids in combination with the Sleeping Beauty transposon system allow efficient transfection of freshly isolated iris pigment epithelial cells. IOVS. 2015, 56(7): 3. Meeting abstract: 2316. Poster.
53. Prat-Souteyrand C, Tobalem S, Harmening N, **Kropp M**, Johnen S, Scherman D, Marie C, Izsvák Z, Thumann G: Stable genomic integration of PEDF in primary pigment epithelial cells transfected with the Sleeping Beauty transposon system to treat age-related macular degeneration (AMD). Human Gene Ther. 2015, 26(10): A80. Meeting abstract: P182. Poster.
54. Scherman D, Pastor M, Marie C, Harmening N, **Kropp M**, Johnen S, Izsvák Z, Thumann G: The use of mini-plasmids free of antibiotic resistance markers for a gene therapeutical approach to treat AMD. 1st World Congress on Electroporation. 2015, Portoroz, Slovenia. Oral presentation.
55. Harmening N, **Kropp M**, Johnen S, Marie C, Scherman D, Izsvák Z, Thumann G: The use of mini-plasmids free of antibiotic resistance markers for a gene therapeutical approach to treat AMD. IOVS. 2015, 56(7): 3. Meeting abstract: 2325. Poster.
56. Thumann G, Marie C, Izsvák Z, Scherman D, Harmening N, **Kropp M**, Johnen S: Safety Strategies in Transposon-Based Plasmids for Gene Therapy. XXIX meeting Club Jules Gonin. 2014, Zurich, Switzerland. Meeting abstract: Oral presentation.
57. **Kropp M**, Harmening N, Johnen S, Tian S, Scherman D, Marie C, Izsvák Z, Thumann G: Transfection of freshly isolated pigment epithelial cells with pFAR4 miniplasmids using the SB100X transposon system. Human Gene Ther. 2014, 25(11): A106. Meeting abstract: P156. Poster.
58. Thies J, Gillissen M, Koroniak L, Mihov G, **Kropp M**, Thumann G: Slow-release latanoprost delivery by DSM's injectable PEA microfibers. IOVS. 2014, 55(13): 3. Meeting abstract: 5256. Poster.
59. Harmening N, Johnen S, Izsvák Z, **Kropp M**, Diarra S, Thumann G: Use of *Sleeping Beauty* Transposase mRNA for Safe and Efficient Gene Delivery in Pigment Epithelial Cells. Human Gene Ther. 2013, 24(12): A59. Meeting abstract: P001. Poster.
60. Thumann G, Target AMD consortium: Transposon-based, targeted, ex-vivo gene therapy to treat AMD. Hum Gene Ther 2013, 24(12): A31. Meeting Abstract: Inv104. Invited talk.
61. Thumann G, Mihov G, Thies J, Kemp A, Morawa K, **Kropp M**: Slow-release intraocular drug delivery by injectable PEA microfibrils. IOVS. 2013, 54(15): 2. Meeting abstract: 5045. Poster.
62. Kehmeier ES, **Kropp M**, Kleinbongard P, Lauer T, Balzer J, Merx MW, Heusch G, Kelm M, Lepper W, Rassaf T: TNF- $\alpha$  and Myocardial Perfusion and Function in Patients with ST-Segment Elevation Myocardial Infarction and Primary Percutaneous Coronary Intervention. 78th Annual Meeting of the German Cardiac Society. 2012, Mannheim, Germany. Meeting abstract: P1747. Poster.
63. **Kropp M**, Hendgen-Cotta UB, Schicho A, Luedike P, Totzeck M, Stock P, Heiss C, Niessen M, Kelm M, Rassaf T: Dietary nitrate mobilizes circulating angiogenic cells (Endothelial-regenerating cells) and exerts cytoprotective and angiogenic effects in the ischemic hind limb model in mice. 77th Annual Meeting of the German Cardiac Society. 2011, Mannheim, Germany. Meeting abstract: P670. Poster.
64. Kehmeier ES, **Kropp M**, Kleinbongard P, Lauer T, Balzer J, Merx MW, Heusch G, Kelm M, Lepper W, Rassaf T: Serial measurements of whole blood nitrite in an intensive care setting. Nitric Oxide-Biology and Chemistry. 2008, 19: S66 suppl. S. Meeting abstract. Poster.

**Other articles**

65. **Kropp M**, Thumann G: Makuladegeneration. onlineacademy.ch, editor: pnn pharma nation network ag. 2021, August, no FPH 201972-01:1-10.
66. Hernandez M, Recalde S, Garcia-Garcia L, Bezunartea J, Miskey C, Johnen S, Diarra S, Sebe A, Rodriguez-Madoz JR, Pouillot S, Marie C, Izsvák Z, Scherman D, **Kropp M**, Prosper F, Thumann G, Ivics Z, Garcia-Layana A, Fernandez-Robredo P: Cell-Based Gene Therapy Using the SB Transposon System Reduces Neovascularisation in Rats. SSRN. 2019, June 2019:id3408024. *Preprint of no. 10 in the list.*
67. **Kropp M**, Thumann G: Gentherapie zur Behandlung der nAMD: das TargetAMD-Projekt. Der Augenspiegel. 2016, 1: 50-52.
68. Thumann G, **Kropp M**, Harmening N: Gentherapie statt Avastin und Co. bei AMD. Ophthal Nachrichten. 2015, 4: 12.

**Invited speaker**

69. **Kropp M**: A Personalized, Non-Viral Gene Therapy Approach to Treat Age-Related Macular Degeneration: Safety and Efficiency Studies of the GMP-Validated Gene Therapy Medicinal Product. 12th World Gene Convention-2023 (WGC-2023). 2023, Sapporo, Japan.
70. **Kropp M**: GMP-grade Manufacturing of an Autologous Non-Viral Gene Therapy Medicinal Product to treat Age-Related Macular Degeneration. First International workshop on Advanced Cell and Gene Therapies: "Share the experience, shape the future". 2022, Turin, Italy.
71. **Kropp M** (replacement of Prof. Thumann): Développement récent sur la génétique et la rétine: Implication pour la pratique. Suisse Academy of Ophthalmology (SAoA) congress. 2019, Lucerne, Switzerland. Opening lecture.
72. **Kropp M**: Gentherapien in der Augenheilkunde/AMD. Swiss Retina Update. 2019, Interlaken, Switzerland.
73. **Kropp M**: Gene therapy in ophthalmology – the TargetAMD project, TEDD Symposium, Frontiers in Personalized Medicine. 2015, Wädenswill, Switzerland.
74. **Kropp M**: Stammzellen der Retina und des retinalen Pigmentepithels. 110th Annual Meeting of the DOG. 2012, Berlin, Germany. Meeting abstract: D015-095.

**Thesis**

75. **Kropp M**: Impact of Inorganic Nitrate in Cardiovascular Ischemic Disease. Thesis (Dr. rer. nat., equivalent to PhD). 2014. Directed by Prof. H. Wagner, RWTH Aachen University, Aachen, Germany.

**DATE AND SIGNATURE:** July 24, 2022



\*: These authors contributed equally to the manuscript