CURRICULUM VITAE

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PERSONAL DATA

Name	Harmening
Forename	Nina
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Date of Birth	March, 15th, 1983
Place of birth	Bünde, Germany
Nationality	German
Languages spoken/written	German (first language), English, French
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PROFESSIONAL BACKGROUND

2017 - Present	Post-doctoral researcher, Lab Manager of the group of the Laboratory of Experimental Ophthalmology (lead: Prof. G. Thumann), University of Geneva and University Hospitals of Geneva, Dept. of Ophthalmology, Switzerland
2012 - 2017	Research Assistant, Lab Manager of the group of the Laboratory of Experimental Ophthalmology (lead: Prof. G. Thumann), University of Geneva and University Hospitals of Geneva, Dept. of Ophthalmology, Switzerland
2009 - 2012	Research Assistant (PhD thesis), University Hospital RWTH Aachen / RWTH Aachen University, Dept. of Ophthalmology, Germany
2006 - 2009	Supervision of the practical courses: Determination of species, basic courses in Biochemistry and Molecular Biology as well as courses in Genetics, RWTH Aachen University, Germany

FORMATION

2017	PhD Thesis: "Regulatable somatic ex vivo gene therapy for the treatment of neurodegenerative diseases using PEDF", RWTH Aachen University, Germany
2014	LTK module 2: Training for Persons Responsible for Directing Animal Experiments (equivalent to FELASA C), University of Zurich, Institute of Laboratory Animal Science, Switzerland

2014	LTK module 1: Introductory Course in Laboratory Animal Science (Part "EGA – Ethik-Gesetzgebung-Alternativmethoden" for accreditation of FELASA B Education), University of Zurich, Institute of Laboratory Animal Science, Switzerland
2011	FELASA B Education "Laboratory Animal Science and Methods of Animal Experimentation", University Hospital RWTH Aachen, Institute for Laboratory Animals, Germany
2011	Courses in Microsoft Office (Word, Excel, Powerpoint), Scientific Writing, Center for Doctoral Studies, RWTH Aachen University, Germany
2009	Diploma Thesis, RWTH Aachen University Hospital, Department of Virology, Germany
2003 - 2009	Study of Biology (Diploma), RWTH Aachen University, Germany
Graduation 2002	Allgemeine Hochschulreife (equivalent to A-level), Anna-Siemsen-Berufskolleg Herford, Germany

TEACHING

2018-present	Scientific Supervision of B.sc. Brittany Wong (Fulbright Research/Swiss Government Excellence Scholarship), UNIGE, Dept. of Ophthalmology

LIST OF PUBLICATIONS

Peer-reviewed articles

1. 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. *Molecular Therapy- Nucleic Acids* (2018) 11: 57-67. [IF 5.660]
2. Stolba U, Ansari-Shahrezaei S, Hagen S, Stattin M, Schmid S, Kropp M, **Harmening N**, Thumann G, TargetAMD Group. Neovascular age-related macular degeneration in Austria Expert review and introduction to the TargetAMD approach. Spektrum der Augenheilkunde (2017) pp1-6. [IF 0.177]
3. 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. *Molecular Therapy-Nucleic Acids* (2017) 6: 302-314. [IF 5.048]
4. Johnen S, Djalali-Talab Y, Kazanskaya O, Moller T, **Harmening N**, Kropp M, Izsvák Z, Walter P, Thumann G. Antiangiogenic and Neurogenic Activities of Sleeping Beauty-Mediated PEDF-Transfected RPE Cells In Vitro and In Vivo. *Biomed Research International* (2015) Article number: 863845; DOI: 10.1155/2015/863845. [IF 1.579]
5. Kuerten D, Johnen S, **Harmening N**, Souteyrand G, Walter P, Thumann G. Transplantation of PEDF-Transfected Pigment Epithelial Cells Inhibits Corneal Neovascularization in a Rabbit Model. *Graefes Arch Clin Exp Ophthalmol.* (2015) 253(7):1061-1069.
6. Kropp M, Morawa K, Mihov G, Salz A, **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 3.364]
7. Johnen S, Izsvàk Z, Stöcker M, **Harmening N**, Salz AK, Walter P, Thumann G. *Sleeping Beauty* Transposon-Mediated Transfection of Retinal and Iris Pigment Epithelial Cells. *Investigative Ophthalmology & Visual Science* (2012) 53(8):4787-4796. [IF 3.750]

Citable Abstracts

1. 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 human pigment epithelial cells to treat nvAMD. *Human Gene Therapy* (2018) 27:A91.
2. 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 Therapy* (2018) 27:A88.
3. 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 TaregtAMD project. *Human Gene Therapy* (2018) 27:A69.
4. 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 Therapy* (2018) 27:A161.
5. 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 Therapy* (2017) 28:A118.
6. 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. SOG annual congress (2017), Davos.
7. 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 Therapy* (2016) 27(11): A120.
8. Kropp M, Chronopoulos A, Conti A, **Harmening N**, Pouillot S, Marie C, Scherman D, Izsvák Z, Thumann G. Results of a biodistribution study of Venus transfected pigment epithelial cells transplanted subretinally in rabbits. *Investigative Ophthalmology & Visual Science* (2016) 57(12).
9. **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 Therapy (2016) 27(11): A108.
10. **Harmening N**, Sealy G, Kropp M, Marie C, Scherman D, Roncetti 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. Investigative Ophthalmology & Visual Science (2016) 57(12).
11. 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. *Investigative Ophthalmology & Visual Science* (2016) 57(12).
12. Thumann G, Kropp M, **Harmening N** on behalf of the entire TargetAMD Consortium. Transposon-based, targeted ex vivo gene therapy to treat age-related macular degeneration: the TargetAMD project. *Human Gene Therapy* (2016) 27(11): A123-A123.
13. 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 Therapy* (2015) 26(10): A81-A81.
14. 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. *Investigative Ophthalmology & Visual Science* (2015), 56(7):2316.

15. 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 Therapy* (2015) 26(10): A80-A80.
16. Scherman D, Pastor M, Marie C, **Harmening N**, Kropp M, Johnen S, Izsvak 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.
17. Thumann G, Kropp M and **Harmening N** on behalf of the entire TargetAMD Consortium. Transposon-Based, Targeted *Ex Vivo* Gene Therapy to Treat Age-related Macular Degeneration. *Investigative Ophthalmology & Visual Science* (2015) *56(7):1820.*
18. **Harmening N**, Kropp M, Johnen S, Marie C, Scherman D, Izsvàk Z, Thumann G. The use of mini-plasmids free of antibiotic resistance markers for a gene therapeutical approach to treat AMD. *Investigative Ophthalmology & Visual Science* (2015) *56*(7).
19. 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 *Sleeping Beauty* (*SB100X*) transposon system. *Human Gene Therapy* (2014) 25(11): A106-A106.
20. **Harmening N**, Johnen S, Izsvàk 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 Therapy* (2013) 24(12): A59-A59.