

## *Curriculum Vitae*

**Olivia Merkel** Professor, Dr. rer. nat.  
d.o.b. March 25, 1981, in Villingen-Schwenningen, Germany

### **University Education**

2009 PhD in Pharmaceutical Technology, PUM  
2006 MS in Pharmaceutical Technology, PUM and Martin-Luther-Universität Halle-Wittenb.  
2000–2005 Studies of Pharmacy, Philipps-Universität Marburg (PUM)

### **Scientific Career**

Since 2022 Associate Editor for WIREs Nanomedicine and Nanobiotechnology  
Since 2021 Associate Editor for Drug Delivery and Translational Research  
2020–2022 Chair of the Transdermal and Mucosal Delivery Focus Group within CRS  
2020–2021 President of the German Chapter of the Controlled Release Society (CRS)  
2020–2021 ProAcademia Mentor  
2018–2022 Standing Member of the Swiss NSF Review Board, Division 2  
2017–2019 15 Months Maternal and Parental Leave as Single Parent in Germany  
Since 2016 Member of the German Center for Lung Research (DZL)  
Since 2015 Professor of Drug Delivery, Ludwig-Maximilians-Universität München (LMU)  
2014–2016 NIH Study Section Reviewer  
Since 2012 Scientific Member of the Karmanos Cancer Institute, Detroit  
2012–2017 Associate Faculty of Oncology, Wayne State University, Detroit  
2011–2017 Assistant Professor of Pharmaceutical Sciences, Wayne State University, Detroit  
2011–2013 Robert-Bosch-Foundation “Fast Track” Mentee  
2009–2011 Postdoctoral Lecturer, Department of Pathological Biochemistry, JLU  
2004–2005 Internship and Residency, Department of Pharmacy, PUM and community pharmacy

### **Awards and Honors**

2022 ERC PoC Grant “RNhale”  
2020 APV Award for Outstanding Achievements in the Pharmaceutical Sciences  
2020 PHOENIX Award in Pharmaceutical Technology  
2019 Princess Therese of Bavaria Award  
2018 Honorary Member of the Académie des Alpilles  
2015 Galenus Technology Award  
2014 ERC StG “Novel Asthma Therapy”  
2014 Dr. Jack Ryan Award Endowed by the Dr. Morris S. Brent Fund  
2012 Young Investigator Award, College of Pharmacy, WSU  
2012 PHOENIX Award in Pharmaceutical Technology  
2008 Robert-Pfleger Award  
2011 Young Investigator Award, EUFEPS  
2010 New Talents Award for the Future of Nanomedicine  
2010 Carl-Wilhelm-Scheele Award, DPhG  
2009 Pest PhD Thesis Award, PUM

### **Citation Record**

*Total citations: 4,845; h-index:40; h-index since 2017: 31* (Google Scholar July 30, 2022)

## Top-10 selected Publications

Baldassi D, Ambike S, Feuerherd M, Cheng CC, Peeler DJ, Feldmann DP, Porrás-González DL, Wei X, Keller LA, Kneidinger N, Stoleriu MG, Popp A, Burgstaller G, Pun SH, Michler T, **Merkel OM**. Inhibition of SARS-CoV-2 replication in the lung with siRNA/VIPER polyplexes. **J Control Release**. 2022 May;345:661-674. doi: [10.1016/j.jconrel.2022.03.051](https://doi.org/10.1016/j.jconrel.2022.03.051).

Ambike S, Cheng CC, Feuerherd M, Velkov S, Baldassi D, Afridi SQ, Porrás-González D, Wei X, Hagen P, Kneidinger N, Stoleriu MG, Grass V, Burgstaller G, Pichlmair A, **Merkel OM**, Ko C, Michler T. Targeting genomic SARS-CoV-2 RNA with siRNAs allows efficient inhibition of viral replication and spread. **Nucleic Acids Res**. 2022 Jan 11;50(1):333-349. doi: [10.1093/nar/gkab1248](https://doi.org/10.1093/nar/gkab1248).

Keil TW, Zimmermann C, Baldassi D, Adams F, Friess W, Mehta A, **Merkel OM**. Impact of crystalline and amorphous matrices on successful spray drying of siRNA polyplexes for inhalation of nano-in-microparticles. **Adv Ther (Weinh)**. 2021 May 7;4(6):2100073. doi: [10.1002/adtp.202100073](https://doi.org/10.1002/adtp.202100073).

Kandil R, Xie Y, Heermann R, Isert L, Jung K, Mehta A, **Merkel OM**. Coming in and Finding Out: Blending Receptor-Targeted Delivery and Efficient Endosomal Escape in a Novel Bio-Responsive siRNA Delivery System for Gene Knockdown in Pulmonary T Cells. **Adv Ther (Weinh)**. 2019 Jul;2(7):1900047. doi: [10.1002/adtp.201900047](https://doi.org/10.1002/adtp.201900047).

Jones SK, Douglas K, Shields AF, **Merkel OM**. Correlating quantitative tumor accumulation and gene knockdown using SPECT/CT and bioluminescence imaging within an orthotopic ovarian cancer model. **Biomaterials**. 2018 Sep;178:183-192. doi: [10.1016/j.biomaterials.2018.06.014](https://doi.org/10.1016/j.biomaterials.2018.06.014).

Feldmann DP, Cheng Y, Kandil R, Xie Y, Mohammadi M, Harz H, Sharma A, Peeler DJ, Moszczynska A, Leonhardt H, Pun SH, **Merkel OM**. In vitro and in vivo delivery of siRNA via VIPER polymer system to lung cells. **J Control Release**. 2018 Apr 28;276:50-58. doi: [10.1016/j.jconrel.2018.02.017](https://doi.org/10.1016/j.jconrel.2018.02.017).

Jones SK, Sarkar A, Feldmann DP, Hoffmann P, **Merkel OM**. Revisiting the value of competition assays in folate receptor-mediated drug delivery. **Biomaterials**. 2017 Sep;138:35-45. doi: [10.1016/j.biomaterials.2017.05.034](https://doi.org/10.1016/j.biomaterials.2017.05.034).

Mohammadi M, Li Y, Abebe DG, Xie Y, Kandil R, Kraus T, Gomez-Lopez N, Fujiwara T, **Merkel OM**. Folate receptor targeted three-layered micelles and hydrogels for gene delivery to activated macrophages. **J Control Release**. 2016 Dec 28;244(Pt B):269-279. doi: [10.1016/j.jconrel.2016.08.020](https://doi.org/10.1016/j.jconrel.2016.08.020).

Movassaghian S, Xie Y, Hildebrandt C, Rosati R, Li Y, Kim NH, Conti DS, da Rocha SR, Yang ZQ, **Merkel OM**. Post-Transcriptional Regulation of the GASC1 Oncogene with Active Tumor-Targeted siRNA-Nanoparticles. **Mol Pharm**. 2016 Aug 1;13(8):2605-21. doi: [10.1021/acs.molpharmaceut.5b00948](https://doi.org/10.1021/acs.molpharmaceut.5b00948).

Xie Y, Kim NH, Nadithe V, Schalk D, Thakur A, Kılıç A, Lum LG, Bassett DJP, **Merkel OM**. Targeted delivery of siRNA to activated T cells via transferrin-polyethylenimine (Tf-PEI) as a potential therapy of asthma. **J Control Release**. 2016 May 10;229:120-129. doi: [10.1016/j.jconrel.2016.03.029](https://doi.org/10.1016/j.jconrel.2016.03.029).