

## Univ.-Prof. Dr. Volker Mailänder

Head of the Division "Translational Nanomedicine" (BiomaTiCS)  
Transfusion Commissioner  
Working Group Leader

Department of Dermatology  
University Medical Center of the Johannes Gutenberg University Mainz  
D-55131 Mainz, Langenbeckstr. 1, building 401  
Tel: +49-6131-17 6299

[volker.mailaender@unimedizin-mainz.de](mailto:volker.mailaender@unimedizin-mainz.de)

[www.unimedizin-mainz.de/biomatics/arbeitsgruppen/kliniken/iii-medizinische-klinik-und-poliklinik/ag-mailaender-iii-medizinische-klinik-und-poliklinik.html](http://www.unimedizin-mainz.de/biomatics/arbeitsgruppen/kliniken/iii-medizinische-klinik-und-poliklinik/ag-mailaender-iii-medizinische-klinik-und-poliklinik.html)

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## Career

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|-------------------|--|
| 04/2009           | Habilitation "Interaction of Nanoparticles with Cells" in Transfusion Medicine   |
| since 09/2009     | Qualified person and head of production in the "Manufacturing Laboratory for Cell Therapies", III. Med. Clinic, University Medical Center of the Johannes Gutenberg University Mainz |
| 05/2008           | Specialist in transfusion medicine   |
| 09/2003 - 08/2008 | Scientist at the Institute of Clinical Transfusion Medicine, University of Ulm (Prof. Dr. H. Schrezenmeier)  |
| 2001              | Doctorate (Dr. med.) in the Department of Applied Physiology (Prof. Lehmann-Horn), University of Ulm   |
| 12/2000 - 08/2003 | Staff in the Department of Hematology, Oncology and Transfusion Medicine, Campus Benjamin Franklin, University Medicine Charité Berlin   |
| 06/1999 - 11/2000 | Research stay at the Robert-Rössle-Klinik, Charité Campus Berlin-Buch  |
| 04/1997 - 04/1998 | Research scholarship in the bone marrow transplant laboratory (Prof. Robert Negrin and Prof. Karl G. Blume), Stanford University (USA)   |

## Awards

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|-------------|---|
| 10/2005     | Posterprize of the German Society for Transfusion Medicine and Immunohaematology            |
| 1995 - 1999 | Scholar of the "Studienstiftung des Deutschen Volkes" (German National Academic Foundation) |
| 1994 - 1996 | Scholar of the "Graduiertenkolleg Biomolekulare Medizin" (University of Ulm)                |

## Selected Publications

Bros M, Nuhn L, Simon J, Moll L, **Mailänder V**, Landfester K, Grabbe S. The Protein Corona as a Confounding Variable of Nanoparticle-Mediated Targeted Vaccine Delivery. *Front Immunol.* 2018;9:1760.

Tonigold M, Simon J, Estupiñán D, Kokkinopoulou M, Reinholz J, Kintzel U, Kaltbeitzel A, Renz P, Domogalla MP, Steinbrink K, Lieberwirth I, Crespy D, Landfester K, **Mailänder V**. Pre-adsorption of antibodies enables targeting of nanocarriers despite a biomolecular corona. *Nat Nanotechnol.* 2018;13(9):862-869.

Simon J, Müller LK, Kokkinopoulou M, Lieberwirth I, Morsbach S, Landfester K, **Mailänder V**. Exploiting the biomolecular corona: pre-coating of nanoparticles enables controlled cellular interactions. *Nanoscale.* 2018;10(22):10731-10739.

Lerch S, Ritz S, Bley K, Messerschmidt C, Weiss CK, Musyanovych A, Landfester K, **Mailänder V**. Nanoprobng the acidification process during intracellular uptake and trafficking. *Nanomedicine.* 2015;11(6):1585-96.

Hofmann D, Messerschmidt C, Bannwarth MB, Landfester K, **Mailänder V**. Drug delivery without nanoparticle uptake: delivery by a kiss-and-run mechanism on the cell membrane. *Chem Commun (Camb).* 2014;50(11):1369-71.

Baier G, Baumann D, Siebert JM, Musyanovych A, **Mailänder V**, Landfester K.; Suppressing Unspecific Cell Uptake for Targeted Delivery Using Hydroxyethyl Starch Nanocapsules. *Biomacromolecules* 2012, 13, 2704-2715.

Florez L, Herrmann C, Cramer JM, Hauser CP, Koynov, K, Landfester K, Crespy D, **Mailänder V**; How Shape Influences Uptake: Interactions of Anisotropic Polymer Nanoparticles and Human Mesenchymal Stem Cells. *Small* 2012, 8, 2222-2230.

Maier M, Kotman N, Friedrichs C, Andrieu J, Wagner M, Graf R, Strauss WSL, **Mailänder, V**, Weiss CK, Landfester K. Highly Site Specific, Protease Cleavable, Hydrophobic Peptide-Polymer Nanoparticles. *Macromolecules* 2011, 44, 6258-6267.

**Mailänder V**, Landfester K.; Interaction of nanoparticles with cells. *Biomacromolecules* 2009 10, 2379-400.

Siebert, JM, Baumann, D, Zeller, A, **Mailänder, V**, Landfester, K.; Synthesis of Polyester Nanoparticles in Miniemulsion Obtained by Radical Ring-Opening of BMDO and Their Potential as Biodegradable Drug Carriers. *Macromol Biosci* 2012, 12, 165-175.