

Marc Schneider – CV

1) General information

Name: Prof. Dr. Marc Schneider
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Position: Full Professor (W3) Chair Biopharmaceutics and Pharmaceutical Technology

2) Academic education

1995-1997 **Graduate research** at the Max Planck Institute for Colloids and Interfaces, and Potsdam University, Potsdam
1992-1998 **Physics training** at TU Kaiserslautern, Ruprecht-Karls University Heidelberg and FU Berlin

3) Academic degrees

1997 **Ph.D.** (Dr. rer. nat.) in Experimental Physics, Potsdam University,
1998 **Diploma** in Physics

4) Professional experience

2015 – present **Full professor (W3)**, Department of Pharmacy, Saarland University
Full professor (W2), Department of Pharmacy, Pharmaceutical Technology and Biopharmacy, Philipps University, Marburg, Germany
2013-2015
2008 **Visiting Scientist**, Chinese Academy of Science, Department of Chemistry, Beijing, China:
2007-2013 **Junior Professor** for Pharmaceutical Nanotechnology, Saarland University, Germany
2005-2007 **Post Doc**, Department of Pharmacy, Biopharmaceutics and Pharmaceutical Technology, Saarland University, Germany
2004 **Post Doc**, Dipartimento di Fisica della Materia, Genoa University, Genoa, Italy
2003 Post-Doc, Max Planck Institute for Colloids and Interfaces, Potsdam
1998 – 1999 **Research Assistant**, Max-Delbrück Center for Molecular Medicine, Berlin

5) Additional qualifications/Awards

2018 Ausgezeichneter Ort – Land der Ideen (special location award)
2017 – present Editorial board member *European Journal of Pharmaceutics and Biopharmaceutics*
2011 - 2016 Co-Editor-in-Chief, *Drug Delivery Letters*
2012 – 2014 Host for Alexander von Humboldt Stipend
2013 Phoenix Pharmacy Award
2010 – 2011 President of the CRS Local Chapter Germany

6) selected Publications

Original publications with connection to pulmonary application

- [1] A.-V. Weiss, T. Fischer, J. Iturri, R. Benitez, J.L. Toca-Herrera, M. Schneider, Mechanical properties of gelatin nanoparticles in dependency of crosslinking time and storage, *Colloids and Surfaces B: Biointerfaces*, 175 (2019) 713-720.
- [2] A. Torge, G. Pavone, M. Jurisic, K. Lima-Engelmann, M. Schneider, A comparison of spherical and cylindrical microparticles composed of nanoparticles for pulmonary application, *Aerosol Science and Technology*, 53 (2019) 53-62.
- [3] N. Nafee, K. Forier, K. Braeckmans, M. Schneider, Mucus-penetrating solid lipid nanoparticles for the treatment of cystic fibrosis: Proof of concept, challenges and pitfalls, *Europ. J. Pharm Biopharm*, 124 (2018) 125-137.
- [4] A. Torge, S. Wagner, P.S. Chaves, E.G. Oliveira, S.S. Guterres, A.R. Pohlmann, A. Titz, M. Schneider, R.C.R. Beck, Ciprofloxacin-loaded lipid-core nanocapsules as mucus penetrating drug delivery system intended for the treatment of bacterial infections in cystic fibrosis, *International Journal of Pharmaceutics*, 527 (2017) 92-102.
- [5] A. Torge, P. Grützmaier, F. Mücklich, M. Schneider, The influence of mannitol on morphology and disintegration of spray-dried nano-embedded microparticles, *European Journal of Pharmaceutical Sciences*, 104 (2017) 171-179.
- [6] M. Möhwald, S.R. Pinnapireddy, B. Wonnemberg, M. Pourasghar, M. Jurisic, A. Jung, C. Fink-Straube, T. Tschernig, U. Bakowsky, M. Schneider, Aspherical, Nanostructured Microparticles for Targeted Gene Delivery to Alveolar Macrophages, *Advanced Healthcare Materials*, 6 (2017) 1700478.
- [7] N. Günday Türeli, A. Torge, J. Juntke, B.C. Schwarz, N. Schneider-Daum, A.E. Türeli, C.-M. Lehr, M. Schneider, Ciprofloxacin-loaded PLGA nanoparticles against cystic fibrosis *P. aeruginosa* lung infections, *Europ. J. Pharm Biopharm*, 117 (2017) 363-371.
- [8] A. Gross, A. Torge, U.F. Schaefer, M. Schneider, C.-M. Lehr, C. Wagner, A foam model highlights the differences of the macro- and microrheology of respiratory horse mucus, *Journal of the Mechanical Behavior of Biomedical Materials*, 71 (2017) 216-222.
- [9] Y. Chen, D.M. Montana, H. Wei, J.M. Cordero, M. Schneider, X. Le Guével, O. Chen, O.T. Bruns, M.G. Bawendi, Shortwave Infrared in Vivo Imaging with Gold Nanoclusters, *Nano Letters*, 17 (2017) 6330-6334.
- [10] C. Shi, C. Thum, Q. Zhang, W. Tu, B. Pelaz, W.J. Parak, Y. Zhang, M. Schneider, Inhibition of the cancer-associated TASK 3 channels by magnetically induced thermal release of Tetrandrine from a polymeric drug carrier, *Journal of Controlled Release*, 237 (2016) 50-60.
- [11] N. Günday Türeli, A.E. Türeli, M. Schneider, Counter-ion complexes for enhanced drug loading in nanocarriers: Proof-of-concept and beyond, *International Journal of Pharmaceutics*, 511 (2016) 994-1001.
- [12] C. Tscheka, M. Hittinger, C.-M. Lehr, N. Schneider-Daum, M. Schneider, Macrophage uptake of cylindrical microparticles investigated with correlative microscopy, *Europ. J. Pharm Biopharm*, 95, Part A (2015) 151-155.
- [13] S. May, S. Kind, B. Jensen, M. Wolkenhauer, M. Schneider, C.M. Lehr, Miniature in vitro dissolution testing of powders for inhalation, *Dissolution Technologies*, 22 (2015) 40-51.
- [14] N. Nafee, A. Husari, C.K. Maurer, C. Lu, C. de Rossi, A. Steinbach, R.W. Hartmann, C.-M. Lehr, M. Schneider, Antibiotic-free nanotherapeutics: Ultra-small, mucus-penetrating solid lipid nanoparticles enhance the pulmonary delivery and anti-

virulence efficacy of novel quorum sensing inhibitors, *Journal of Controlled Release*, 192 (2014) 131-140.

[15] S. May, B. Jensen, C. Weiler, M. Wolkenhauer, M. Schneider, C.-M. Lehr, Dissolution Testing of Powders for Inhalation: Influence of Particle Deposition and Modeling of Dissolution Profiles, *Pharm Res-Dord*, 31 (2014) 3211-3224.

[16] S.A. Khan, M. Schneider, Stabilization of Gelatin Nanoparticles Without Crosslinking, *Macromolecular Bioscience*, 14 (2014) 1627-1638.

[17] J. Kirch, A. Schneider, B. Abou, A. Hopf, U.F. Schaefer, M. Schneider, C. Schall, C. Wagner, C.M. Lehr, Optical tweezers reveal relationship between microstructure and nanoparticle penetration of pulmonary mucus, *Proceedings of the National Academy of Sciences of the United States of America*, 109 (2012) 18355-18360.

[18] C.A. Ruge, J. Kirch, O. Canadas, M. Schneider, J. Perez-Gil, U.F. Schaefer, C. Casals, C.M. Lehr, Uptake of nanoparticles by alveolar macrophages is triggered by surfactant protein A, *Nanomedicine: Nanotechnology, Biology, and Medicine*, 7 (2011) 690-693.

[19] D. Kohler, M. Schneider, M. Krüger, C.-M. Lehr, H. Möhwald, D. Wang, Template-Assisted Polyelectrolyte Encapsulation of Nanoparticles into Dispersible, Hierarchically Nanostructured Microfibers, *Advanced Materials*, 23 (2011) 1376-1379.

[20] N. Nafee, M. Schneider, U.F. Schaefer, C.M. Lehr, Relevance of the colloidal stability of chitosan/PLGA nanoparticles on their cytotoxicity profile, *International Journal of Pharmaceutics*, 381 (2009) 130-139.

[21] N. Nafee, S. Taetz, M. Schneider, U.F. Schaefer, C.M. Lehr, Chitosan-coated PLGA nanoparticles for DNA/RNA delivery: effect of the formulation parameters on complexation and transfection of antisense oligonucleotides, *Nanomedicine: Nanotechnology, Biology, and Medicine*, 3 (2007) 173-183.