

List of Publications

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HIPS, Department Drug Delivery (DDEL)
Saarland University, Biopharmaceutics and Pharmaceutical Technology

(incl. publications of senior researchers of HIPS-DDEL)

23 April 2012

Guével, X.L., Spies, C., Daum, N., Jung, G., Schneider, M.
Highly fluorescent silver nanoclusters stabilized by glutathione: a promising fluorescent label for bioimaging;
(2012) Nano Research, accepted
DOCUMENT TYPE: Article

Kirch, J., Guenther, M., Doshi, N., Schaefer, U.F., Schneider, M., Mitragotri, S., Lehr, C.-M.
Mucociliary clearance of micro- and nanoparticles is independent of size, shape and charge-an ex vivo and in silico approach
(2012) Journal of Controlled Release, 159 (1), pp. 128-134.
DOCUMENT TYPE: Article

Nafee, N., Schneider, M., Friebel, K., Dong, M., Schaefer, U.F., Mürdter, T.E., Lehr, C.-M.
Treatment of lung cancer via telomerase inhibition: Self-assembled nanoplexes versus polymeric nanoparticles as vectors for 2'-O-Methyl-RNA
(2012) European Journal of Pharmaceutics and Biopharmaceutics, 80 (3), pp. 478-489.
DOCUMENT TYPE: Article

Hansen, S., Lehr, C.-M.
Nanoparticles for transcutaneous vaccination
(2012) Microbial Biotechnology, 5 (2), pp. 156-167.
DOCUMENT TYPE: Short Survey

Krejci, I., Piana, C., Howitz, S., Wegener, T., Fiedler, S., Zwanzig, M., Schmitt, D., Daum, N., Meier, K., Lehr, C.M., Batista, U., Zemljic, S., Messerschmidt, J., Franzke, J., Wirth, M., Gabor, F.
Process optimization and biocompatibility of cell carriers suitable for automated magnetic manipulation
(2012) Acta Biomaterialia, 8 (3), pp. 1239-1247.
DOCUMENT TYPE: Article

Daum, N., Tscheka, C., Neumeyer, A., Schneider, M.
Novel approaches for drug delivery systems in nanomedicine: Effects of particle design and shape
(2012) Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 4 (1), pp. 52-65.
DOCUMENT TYPE: Review

Hahn, T., Selzer, D., Neumann, D., Kostka, K.-H., Lehr, C.-M., Schaefer, U.F.
Influence of the application area on finite dose permeation in relation to drug type applied
(2012) Experimental Dermatology, 21 (3), pp. 233-235.
DOCUMENT TYPE: Letter

Linn, M., Collnot, E.-M., Djuric, D., Hempel, K., Fabian, E., Kolter, K., Lehr, C.-M.
Soluplus® as an effective absorption enhancer of poorly soluble drugs in vitro and in vivo
(2012) *European Journal of Pharmaceutical Sciences*, 45 (3), pp. 336-343.
DOCUMENT TYPE: Article

Dandekar, P., Jain, R., Stauner, T., Loretz, B., Koch, M., Wenz, G., Lehr, C.-M.
A Hydrophobic Starch Polymer for Nanoparticle-Mediated Delivery of Docetaxel
(2012) *Macromolecular Bioscience*, 12 (2), pp. 184-194.
DOCUMENT TYPE: Article

Daum, N., Kuehn, A., Hein, S., Schaefer, U.F., Huwer, H., Lehr, C.-M.
Isolation, cultivation, and application of human alveolar epithelial cells
(2012) *Methods in Molecular Biology*, 806, pp. 31-42.
DOCUMENT TYPE: Article

Hansen, S., Selzer, D., Schaefer, U.F., Kasting, G.B.
An extended database of keratin binding
(2011) *Journal of Pharmaceutical Sciences*, 100 (5), pp. 1712-1726.
DOCUMENT TYPE: Article

Ruge, C.A., Kirch, J., Cañadas, O., Schneider, M., Perez-Gil, J., Schaefer, U.F., Casals, C., Lehr, C.-M.
Uptake of nanoparticles by alveolar macrophages is triggered by surfactant protein A
(2011) *Nanomedicine: Nanotechnology, Biology, and Medicine*, 7 (6), pp. 690-693.
DOCUMENT TYPE: Article

Jain, R., Dandekar, P., Loretz, B., Melero, A., Stauner, T., Wenz, G., Koch, M., Lehr, C.-M.
Enhanced cellular delivery of idarubicin by surface modification of propyl starch nanoparticles employing pteric acid conjugated polyvinyl alcohol
(2011) *International Journal of Pharmaceutics*, 420 (1), pp. 147-155.
DOCUMENT TYPE: Article

Guével, X.L., Daum, N., Schneider, M.
Synthesis and characterization of human transferrin-stabilized gold nanoclusters
(2011) *Nanotechnology*, 22 (27), art. no. 275103, .
DOCUMENT TYPE: Article

Breitkreutz, D., Braiman-Wiksman, L., Daum, N., Tennenbaum, T.
The protein kinase C family: Key regulators bridging signaling pathways in skin and tumor epithelia
(2011) *Protein Reviews*, 13, pp. 171-198.
DOCUMENT TYPE: Review

Dong, M., Philippi, C., Loretz, B., Nafee, N., Schaefer, U.F., Friedel, G., Ammon-Treiber, S., Griese, E.-U., Lehr, C.-M., Klotz, U., Mürdter, T.E.
Tissue slice model of human lung cancer to investigate telomerase inhibition by nanoparticle delivery of antisense 2'-O-methyl-RNA
(2011) *International Journal of Pharmaceutics*, 419 (1-2), pp. 33-42.
DOCUMENT TYPE: Article

Ourique, A.F., Melerio, A., Silva, C.D.B.D., Schaefer, U.F., Pohlmann, A.R., Guterres, S.S., Lehr, C.-M., Kostka, K.-H., Beck, R.C.R.
Improved photostability and reduced skin permeation of tretinoin: Development of a semisolid nanomedicine
(2011) European Journal of Pharmaceutics and Biopharmaceutics, 79 (1), pp. 95-101.
DOCUMENT TYPE: Article

Neumeyer, A., Bukowski, M., Veith, M., Lehr, C.-M., Daum, N.
Propidium iodide labeling of nanoparticles as a novel tool for the quantification of cellular binding and uptake
(2011) Nanomedicine: Nanotechnology, Biology, and Medicine, 7 (4), pp. 410-419.
DOCUMENT TYPE: Article

Collnot, E.-M., Mell, N.A., Lehr, C.-M.
New hope for inflammatory bowel disease [Neue hoffnung bei entzündlicher darmerkrankung]
(2011) Deutsche Apotheker Zeitung, 151 (27), pp. 60-63.
DOCUMENT TYPE: Short Survey

Hansen, S., Lehr, C.-M.
Using nanoparticles in the skin? More than just cosmetics! [Mit nanopartikeln in die haut? Mehr als nur kosmetik!]
(2011) Deutsche Apotheker Zeitung, 151 (27), pp. 64-67.
DOCUMENT TYPE: Short Survey

Hankin, S., Boraschi, D., Duschl, A., Lehr, C.-M., Lichtenbeld, H.
Towards nanotechnology regulation - Publish the unpublishable
(2011) Nano Today, 6 (3), pp. 228-231.
DOCUMENT TYPE: Note

Lehr, C.-M., Daum, N., Schneider, M., Schäfer, U.F.
Biological barriers - A need for novel tools in nanotoxicology and nanomedicine
(2011) European Journal of Pharmaceutics and Biopharmaceutics, 77 (3), p. 337.
DOCUMENT TYPE: Editorial

Lehmann, A.D., Daum, N., Bur, M., Lehr, C.-M., Gehr, P., Rothen-Rutishauser, B.M.
An in vitro triple cell co-culture model with primary cells mimicking the human alveolar epithelial barrier
(2011) European Journal of Pharmaceutics and Biopharmaceutics, 77 (3), pp. 398-406.
DOCUMENT TYPE: Article

Schulze, C., Schaefer, U.F., Ruge, C.A., Wohlleben, W., Lehr, C.-M.
Interaction of metal oxide nanoparticles with lung surfactant protein A
(2011) European Journal of Pharmaceutics and Biopharmaceutics, 77 (3), pp. 376-383.
DOCUMENT TYPE: Article

Kohler, D., Schneider, M., Krüger, M., Lehr, C.-M., Möhwald, H., Wang, D.
Template-assisted polyelectrolyte encapsulation of nanoparticles into dispersible, hierarchically nanostructured microfibers
(2011) Advanced Materials, 23 (11), pp. 1376-1379.
DOCUMENT TYPE: Article

Patzelt, A., Richter, H., Knorr, F., Schäfer, U., Lehr, C.-M., Dähne, L., Sterry, W., Lademann, J.

Selective follicular targeting by modification of the particle sizes
(2011) *Journal of Controlled Release*, 150 (1), pp. 45-48.
DOCUMENT TYPE: Article

Hein, S., Bur, M., Schaefer, U.F., Lehr, C.-M.
A new Pharmaceutical Aerosol Deposition Device on Cell Cultures (PADD OCC) to evaluate
pulmonary drug absorption for metered dose dry powder formulations
(2011) *European Journal of Pharmaceutics and Biopharmaceutics*, 77 (1), pp. 132-138.
DOCUMENT TYPE: Article

Essa, S., Denzer, N., Mahlkecht, U., Klein, R., Collnot, E.M., Reichrath, J.
Challenge and promise: The role of miRNA for pathogenesis and progression of malignant melanoma
(2010) *Clinical Epigenetics*, 1 (1-2), pp. 7-11.
DOCUMENT TYPE: Article

Essa, S., Denzer, N., Mahlkecht, U., Klein, R., Collnot, E.M., Tilgen, W., Reichrath, J.
VDR microRNA expression and epigenetic silencing of vitamin D signaling in melanoma cells
(2010) *Journal of Steroid Biochemistry and Molecular Biology*, 121 (1-2), pp. 110-113.
DOCUMENT TYPE: Article

Leonard, F., Collnot, E.-M., Lehr, C.-M.
A three-dimensional coculture of enterocytes, monocytes and dendritic cells to model inflamed
intestinal mucosa in vitro
(2010) *Molecular Pharmaceutics*, 7 (6), pp. 2103-2119.
DOCUMENT TYPE: Article

Hein, S., Bur, M., Kolb, T., Muellinger, B., Schaefer, U.F., Lehr, C.-M.
The Pharmaceutical Aerosol Deposition Device on Cell Cultures (PADD OCC) in vitro system: Design
and experimental protocol
(2010) *ATLA Alternatives to Laboratory Animals*, 38 (4), pp. 285-295.
DOCUMENT TYPE: Article

Reum, N., Fink-Straube, C., Klein, T., Hartmann, R.W., Lehr, C.-M., Schneider, M.
Multilayer coating of gold nanoparticles with drug-polymer coadsorbates
(2010) *Langmuir*, 26 (22), pp. 16901-16908.
DOCUMENT TYPE: Article

Hoppstädter, J., Diesel, B., Zarbock, R., Breinig, T., Monz, D., Koch, M., Meyerhans, A., Gortner, L.,
Lehr, C.-M., Huwer, H., Kiemer, A.K.
Differential cell reaction upon Toll-like receptor 4 and 9 activation in human alveolar and lung
interstitial macrophages
(2010) *Respiratory Research*, 11, art. no. 124, .
DOCUMENT TYPE: Article

Philippi, C., Loretz, B., Schaefer, U.F., Lehr, C.M.
Telomerase as an emerging target to fight cancer - Opportunities and challenges for nanomedicine
(2010) *Journal of Controlled Release*, 146 (2), pp. 228-240.
DOCUMENT TYPE: Review

Hahn, T., Winkler, K., Lehr, C.-M., Schäfer, U.F.

Ointment bases and the rate of water loss of the skin [Salbengrundlagen und die wasserabgabefähigkeit der Haut]

(2010) Deutsche Apotheker Zeitung, 150 (34), pp. 59-62.

DOCUMENT TYPE: Short Survey

Henning, A., Schneider, M., Nafee, N., Muijs, L., Rytting, E., Wang, X., Kissel, T., Grafahrend, D., Klee, D., Lehr, C.-M.

Influence of particle size and material properties on mucociliary clearance from the airways

(2010) Journal of Aerosol Medicine and Pulmonary Drug Delivery, 23 (4), pp. 233-241.

DOCUMENT TYPE: Article

Maurer, F., Daum, N., Schaefer, U.F., Lehr, C.-M., Bauer, P.

Plant genetic factors for iron homeostasis affect iron bioavailability in Caco-2 cells

(2010) Food Research International, 43 (6), pp. 1661-1665.

DOCUMENT TYPE: Article

Collnot, E.-M., Baldes, C., Schaefer, U.F., Edgar, K.J., Wempe, M.F., Lehr, C.-M.

Vitamin E TPGS P-glycoprotein inhibition mechanism: Influence on conformational flexibility, intracellular ATP levels, and role of time and site of access

(2010) Molecular Pharmaceutics, 7 (3), pp. 642-651.

DOCUMENT TYPE: Article

Ciana, A., Meier, K., Daum, N., Gerbes, S., Veith, M., Lehr, C.-M., Minetti, G.

A dynamic ratio of the $\alpha +$ and $\alpha -$ isoforms of the tight junction protein ZO-1 is characteristic of Caco-2 cells and correlates with their degree of differentiation

(2010) Cell Biology International, 34 (6), pp. 669-678.

DOCUMENT TYPE: Article

Bur, M., Huwer, H., Muys, L., Lehr, C.-M.

Drug transport across pulmonary epithelial cell monolayers: Effects of particle size, apical liquid volume, and deposition technique

(2010) Journal of Aerosol Medicine and Pulmonary Drug Delivery, 23 (3), pp. 119-127.

DOCUMENT TYPE: Article

Beisner, J., Dong, M., Taetz, S., Nafee, N., Griese, E.-U., Schaefer, U., Lehr, C.-M., Klotz, U., Mürdter, T.E.

Nanoparticle mediated delivery of 2'-O-methyl-RNA leads to efficient telomerase inhibition and telomere shortening in human lung cancer cells

(2010) Lung Cancer, 68 (3), pp. 346-354.

DOCUMENT TYPE: Article

Muendoerfer, M., Schaefer, U.F., Koenig, P., Walk, J.S., Loos, P., Balbach, S., Eichinger, T., Lehr, C.-M.

Online monitoring of transepithelial electrical resistance (TEER) in an apparatus for combined dissolution and permeation testing

(2010) International Journal of Pharmaceutics, 392 (1-2), pp. 134-140.

DOCUMENT TYPE: Article

Hahn, T., Hansen, S., Neumann, D., Kostka, K.-H., Lehr, C.-M., Muys, L., Schaefer, U.F.

Infrared densitometry: A fast and non-destructive method for exact stratum corneum depth calculation for in vitro tape-stripping

(2010) Skin Pharmacology and Physiology, 23 (4), pp. 183-192.

DOCUMENT TYPE: Article

Henning, A., Hein, S., Schneider, M., Bur, M., Lehr, C.-M.
Pulmonary drug delivery: Medicines for inhalation
(2010) Handbook of Experimental Pharmacology, 197, pp. 171-192.
DOCUMENT TYPE: Review

Gaschen, A., Lang, D., Kalberer, M., Savi, M., Geiser, T., Gazdhar, A., Lehr, C.-M., Bur, M., Dommen, J., Baltensperger, U., Geiser, M.
Cellular responses after exposure of lung cell cultures to secondary organic aerosol particles
(2010) Environmental Science and Technology, 44 (4), pp. 1424-1430.
DOCUMENT TYPE: Article

Melero, A., Lehr, C.-M., Schäfer, U.F., Garrigues, T.M.
Wistar rat skin as surrogate for human skin in nortriptyline hydrochloride patch studies
(2010) International Journal of Pharmaceutics, 384 (1-2), pp. 137-139.
DOCUMENT TYPE: Article

Rytting, E., Bur, M., Cartier, R., Bouyssou, T., Wang, X., Krüger, M., Lehr, C.-M., Kissel, T.
In vitro and in vivo performance of biocompatible negatively-charged salbutamol-loaded nanoparticles
(2010) Journal of Controlled Release, 141 (1), pp. 101-107.
DOCUMENT TYPE: Article

Santander-Ortega, M.J., Stauner, T., Loretz, B., Ortega-Vinuesa, J.L., Bastos-González, D., Wenz, G., Schaefer, U.F., Lehr, C.M.
Nanoparticles made from novel starch derivatives for transdermal drug delivery
(2010) Journal of Controlled Release, 141 (1), pp. 85-92.
DOCUMENT TYPE: Article

Khvedelidze, M., Mdzinarashvili, T., Partskhaladze, T., Nafee, N., Schaefer, U.F., Lehr, C.M., Schneider, M.
Calorimetric and spectrophotometric investigation of PLGA nanoparticles and their complex with DNA
(2010) Journal of Thermal Analysis and Calorimetry, 99 (1), pp. 337-348.
DOCUMENT TYPE: Conference Paper

Aust, W., Daum, N., Bloching, M., Armbrüster, V., Jung, E., Sprau, C., Müller, M., Boehm, A., Mozet, C., Wichmann, G., Dietz, A.
Risk of nanoparticles? [Risiken durch Nanopartikel?]
(2009) Laryngo- Rhino- Otologie, 88 (3), pp. 162-166.
DOCUMENT TYPE: Review

Bur, M., Henning, A., Hein, S., Schneider, M., Lehr, C.-M.
Inhalative nanomedicine-opportunities and challenges
(2009) Inhalation Toxicology, 21 (SUPPL. 1), pp. 137-143.
DOCUMENT TYPE: Review

Nafee, N., Schneider, M., Schaefer, U.F., Lehr, C.-M.
Relevance of the colloidal stability of chitosan/PLGA nanoparticles on their cytotoxicity profile
(2009) International Journal of Pharmaceutics, 381 (2), pp. 130-139.
DOCUMENT TYPE: Article

Bhardwaj, V., Ankola, D.D., Gupta, S.C., Schneider, M., Lehr, C.-M., Kumar, M.N.V.R.
PLGA nanoparticles stabilized with cationic surfactant: Safety studies and application in oral delivery of paclitaxel to treat chemical-induced breast cancer in rat
(2009) *Pharmaceutical Research*, 26 (11), pp. 2495-2503.
DOCUMENT TYPE: Article

Melero, A., Garrigues, T.M., Alós, M., Kostka, K.H., Lehr, C.M., Schaefer, U.F.
Nortriptyline for smoking cessation: Release and human skin diffusion from patches
(2009) *International Journal of Pharmaceutics*, 378 (1-2), pp. 101-107.
DOCUMENT TYPE: Article

Bur, M., Rothen-Rutishauser, B., Huwer, H., Lehr, C.-M.
A novel cell compatible impingement system to study in vitro drug absorption from dry powder aerosol formulations
(2009) *European Journal of Pharmaceutics and Biopharmaceutics*, 72 (2), pp. 350-357.
DOCUMENT TYPE: Article

Taetz, S., Nafee, N., Beisner, J., Piotrowska, K., Baldes, C., Mürdter, T.E., Huwer, H., Schneider, M., Schaefer, U.F., Klotz, U., Lehr, C.-M.
The influence of chitosan content in cationic chitosan/PLGA nanoparticles on the delivery efficiency of antisense 2'-O-methyl-RNA directed against telomerase in lung cancer cells
(2009) *European Journal of Pharmaceutics and Biopharmaceutics*, 72 (2), pp. 358-369.
DOCUMENT TYPE: Article

Hansen, S., Naegel, A., Heisig, M., Wittum, G., Neumann, D., Kostka, K.-H., Meiers, P., Lehr, C.-M., Schaefer, U.F.
The role of corneocytes in skin transport revised-a combined computational and experimental approach
(2009) *Pharmaceutical Research*, 26 (6), pp. 1379-1397.
DOCUMENT TYPE: Article

Lehr, C.-M.
Biological barriers and nanomedicine - Timely challenges in advanced drug delivery research
(2009) *European Journal of Pharmaceutics and Biopharmaceutics*, 72 (2), pp. 287-288.
DOCUMENT TYPE: Editorial

Taetz, S., Bochot, A., Surace, C., Arpicco, S., Renoir, J.-M., Schaefer, U.F., Marsaud, V., Kerdine-Roemer, S., Lehr, C.-M., Fattal, E.
Hyaluronic acid-modified DOTAP/DOPE liposomes for the targeted delivery of anti-telomerase siRNA to CD44-expressing lung cancer cells
(2009) *Oligonucleotides*, 19 (2), pp. 103-115.
DOCUMENT TYPE: Article

Beisner, J., Dong, M., Taetz, S., Piotrowska, K., Kleideiter, E., Friedel, G., Schaefer, U., Lehr, C.-M., Klotz, U., Mürdter, T.E.
Efficient telomerase inhibition in human non-small cell lung cancer cells by liposomal delivery of 2'-O-methyl-RNA
(2009) *Journal of Pharmaceutical Sciences*, 98 (5), pp. 1765-1774.
DOCUMENT TYPE: Article

Daum, N., Neumeyer, A., Wahl, B., Bur, M., Lehr, C.-M.

In vitro systems for studying epithelial transport of macromolecules
(2009) *Methods in Molecular Biology*, 480, pp. 151-164.
DOCUMENT TYPE: Article

Meier, K., Lehr, C.-M., Daum, N.
Differentiation potential of human pancreatic stem cells for epithelial- and endothelial-like cell types
(2009) *Annals of Anatomy*, 191 (1), pp. 70-82.
DOCUMENT TYPE: Article

Wahl, B., Daum, N., Ohrem, H.-L., Lehr, C.-M.
Novel luminescence assay offers new possibilities for the risk assessment of silica nanoparticles
(2008) *Nanotoxicology*, 2 (4), pp. 243-251.
DOCUMENT TYPE: Article

Taetz, S., Mürdter, T.E., Zapp, J., Boettcher, S., Baldes, C., Kleideiter, E., Piotrowska, K., Schaefer, U.F., Klotz, U., Lehr, C.-M.
Decomposition of the Telomere-Targeting agent BRACO19 in physiological media results in products with decreased inhibitory potential
(2008) *International Journal of Pharmaceutics*, 357 (1-2), pp. 6-14.
DOCUMENT TYPE: Article

Schulze, C., Kroll, A., Lehr, C.-M., Schäfer, U.F., Becker, K., Schnekenburger, J., Schulze Isfort, C., Landsiedel, R., Wohlleben, W.
Not ready to use - Overcoming pitfalls when dispersing nanoparticles in physiological media
(2008) *Nanotoxicology*, 2 (2), pp. 51-61.
DOCUMENT TYPE: Article

Melero, A., Garrigues, T.M., Almudever, P., Villodre, A.M., Lehr, C.M., Schäfer, U.
Nortriptyline hydrochloride skin absorption: Development of a transdermal patch
(2008) *European Journal of Pharmaceutics and Biopharmaceutics*, 69 (2), pp. 588-596.
DOCUMENT TYPE: Article

Henning, A., Schneider, M., Bur, M., Blank, F., Gehr, P., Lehr, C.-M.
Embryonic chicken trachea as a new in vitro model for the investigation of mucociliary particle clearance in the airways
(2008) *AAPS PharmSciTech*, 9 (2), pp. 521-527.
DOCUMENT TYPE: Article

Bur, M., Lehr, C.-M.
Pulmonary cell culture models to study the safety and efficacy of innovative aerosol medicines
(2008) *Expert Opinion on Drug Delivery*, 5 (6), pp. 641-652.
DOCUMENT TYPE: Review

Anwar, A., Burkholz, T., Scherer, C., Abbas, M., Lehr, C.-M., Diederich, M., Jacob, C.
Naturally occurring reactive sulfur species, their activity against Caco-2 cells, and possible modes of biochemical action
(2008) *Journal of Sulfur Chemistry*, 29 (3-4), pp. 251-268.
DOCUMENT TYPE: Article

Kaca, M., Bock, U., Jalal, M.T., Harms, M., Hoffmann, C., Müller-Goymann, C., Netzlaff, F., Schäfer, U., Lehr, C.-M., Haltner-Ukomadu, E.

The physicochemical parameters of marker compounds and vehicles for use in in vitro percutaneous absorption studies
(2008) ATLA Alternatives to Laboratory Animals, 36 (2), pp. 189-200.
DOCUMENT TYPE: Article

Schäfer-Korting, M., Bock, U., Diembeck, W., Düsing, H.-J., Gamer, A., Haltner-Ukomadu, E., Hoffmann, C., Kaca, M., Kamp, H., Kersen, S., Kietzmann, M., Korting, H.C., Krächter, H.-U., Lehr, C.-M., Liebsch, M., Mehling, A., Müller-Goymann, C., Netzlaff, F., Niedorf, F., Rübhelke, M.K., Schäfer, U., Schmidt, E., Schreiber, S., Spielmann, H., Vuia, A., Weimer, M.
The use of reconstructed human epidermis for skin absorption testing: Results of the validation study
(2008) ATLA Alternatives to Laboratory Animals, 36 (2), pp. 161-187.
DOCUMENT TYPE: Article

Henning, A., Neumann, D., Kostka, K.-H., Lehr, C.-M., Schaefer, U.F.
Influence of human skin specimens consisting of different skin layers on the result of in vitro permeation experiments
(2008) Skin Pharmacology and Physiology, 21 (2), pp. 81-88.
DOCUMENT TYPE: Article

Hansen, S., Henning, A., Naegel, A., Heisig, M., Wittum, G., Neumann, D., Kostka, K.-H., Zbytovska, J., Lehr, C.-M., Schaefer, U.F.
In-silico model of skin penetration based on experimentally determined input parameters. Part I: Experimental determination of partition and diffusion coefficients
(2008) European Journal of Pharmaceutics and Biopharmaceutics, 68 (2), pp. 352-367.
DOCUMENT TYPE: Article

Naegel, A., Hansen, S., Neumann, D., Lehr, C.-M., Schaefer, U.F., Wittum, G., Heisig, M.
In-silico model of skin penetration based on experimentally determined input parameters. Part II: Mathematical modelling of in-vitro diffusion experiments. Identification of critical input parameters
(2008) European Journal of Pharmaceutics and Biopharmaceutics, 68 (2), pp. 368-379.
DOCUMENT TYPE: Article

Becker, U., Ehrhardt, C., Schneider, M., Muys, L., Gross, D., Eschmann, K., Schaefer, U.F., Lehr, C.-M.
A comparative evaluation of corneal epithelial cell cultures for assessing ocular permeability
(2008) ATLA Alternatives to Laboratory Animals, 36 (1), pp. 33-44.
DOCUMENT TYPE: Article

Breitkreutz, D., Braiman-Wiksman, L., Daum, N., Denning, M.F., Tennenbaum, T.
Protein kinase C family: On the crossroads of cell signaling in skin and tumor epithelium
(2007) Journal of Cancer Research and Clinical Oncology, 133 (11), pp. 793-808.
DOCUMENT TYPE: Review

Stracke, F., Schneider, M., Weiss, B., Lehr, C.-M., Schäfer, U.F., König, K.
Multiphoton microscopy for the investigation of trans-cutaneous drug delivery
(2007) Progress in Biomedical Optics and Imaging - Proceedings of SPIE, 6630, art. no. 663010, .
DOCUMENT TYPE: Conference Paper

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

DOCUMENT TYPE: Article

Beck, R.C.R., Pohlmann, A.R., Hoffmeister, C., Gallas, M.R., Collnot, E., Schaefer, U.F., Guterres, S.S., Lehr, C.M.

Dexamethasone-loaded nanoparticle-coated microparticles: Correlation between in vitro drug release and drug transport across Caco-2 cell monolayers

(2007) European Journal of Pharmaceutics and Biopharmaceutics, 67 (1), pp. 18-30.

DOCUMENT TYPE: Article

Weiss, B., Schneider, M., Muys, L., Taetz, S., Neumann, D., Schaefer, U.F., Lehr, C.-M.

Coupling of biotin-(poly(ethylene glycol))amine to poly(D,L-lactide-co- glycolide) nanoparticles for versatile surface modification

(2007) Bioconjugate Chemistry, 18 (4), pp. 1087-1094.

DOCUMENT TYPE: Article

Steimer, A., Franke, H., Haltner-Ukomado, E., Laue, M., Ehrhardt, C., Lehr, C.-M.

Monolayers of porcine alveolar epithelial cells in primary culture as an in vitro model for drug absorption studies

(2007) European Journal of Pharmaceutics and Biopharmaceutics, 66 (3), pp. 372-382.

DOCUMENT TYPE: Article

Motz, S.A., Schaefer, U.F., Balbach, S., Eichinger, T., Lehr, C.-M.

Permeability assessment for solid oral drug formulations based on Caco-2 monolayer in combination with a flow through dissolution cell

(2007) European Journal of Pharmaceutics and Biopharmaceutics, 66 (2), pp. 286-295.

DOCUMENT TYPE: Article

Collnot, E.-M., Baldes, C., Wempe, M.F., Kappl, R., Hüttermann, J., Hyatt, J.A., Edgar, K.J., Schaefer, U.F., Lehr, C.-M.

Mechanism of inhibition of P-glycoprotein mediated efflux by vitamin E TPGS: Influence on ATPase activity and membrane fluidity

(2007) Molecular Pharmaceutics, 4 (3), pp. 465-474.

DOCUMENT TYPE: Article

Lademann, J., Richter, H., Teichmann, A., Otberg, N., Blume-Peytavi, U., Luengo, J., Weiß, B., Schaefer, U.F., Lehr, C.-M., Wepf, R., Sterry, W.

Nanoparticles - An efficient carrier for drug delivery into the hair follicles

(2007) European Journal of Pharmaceutics and Biopharmaceutics, 66 (2), pp. 159-164.

DOCUMENT TYPE: Article

Schroeder, I.Z., Franke, P., Schaefer, U.F., Lehr, C.-M.

Delivery of ethinylestradiol from film forming polymeric solutions across human epidermis in vitro and in vivo in pigs

(2007) Journal of Controlled Release, 118 (2), pp. 196-203.

DOCUMENT TYPE: Article

Becker, U., Ehrhardt, C., Daum, N., Baldes, C., Schaefer, U.F., Ruprecht, K.W., Kim, K.-J., Lehr, C.-M.

Expression of ABC-transporters in human corneal tissue and the transformed cell line, HCE-T

(2007) Journal of Ocular Pharmacology and Therapeutics, 23 (2), pp. 172-181.

DOCUMENT TYPE: Article

Endter, S., Becker, U., Daum, N., Huwer, H., Lehr, C.-M., Gumbleton, M., Ehrhardt, C.
P-glycoprotein (MDR1) functional activity in human alveolar epithelial cell monolayers
(2007) *Cell and Tissue Research*, 328 (1), pp. 77-84.
DOCUMENT TYPE: Article

Netzlaff, F., Kaca, M., Bock, U., Haltner-Ukomadu, E., Meiers, P., Lehr, C.-M., Schaefer, U.F.
Permeability of the reconstructed human epidermis model Episkin® in comparison to various human
skin preparations
(2007) *European Journal of Pharmaceutics and Biopharmaceutics*, 66 (1), pp. 127-134.
DOCUMENT TYPE: Article

Motz, S.A., Klimundová, J., Schaefer, U.F., Balbach, S., Eichinger, T., Solich, P., Lehr, C.-M.
Automated measurement of permeation and dissolution of propranolol HCl tablets using sequential
injection analysis
(2007) *Analytica Chimica Acta*, 581 (1), pp. 174-180.
DOCUMENT TYPE: Article

Betz, T., Bakowsky, U., Müller, M.R., Lehr, C.-M., Bernhardt, I.
Conformational change of membrane proteins leads to shape changes of red blood cells
(2007) *Bioelectrochemistry*, 70 (1), pp. 122-126.
DOCUMENT TYPE: Article

Zurdo Schroeder, I., Franke, P., Schaefer, U.F., Lehr, C.-M.
Development and characterization of film forming polymeric solutions for skin drug delivery
(2007) *European Journal of Pharmaceutics and Biopharmaceutics*, 65 (1), pp. 111-121.
DOCUMENT TYPE: Article

Anabousi, S., Bakowsky, U., Schneider, M., Huwer, H., Lehr, C.-M., Ehrhardt, C.
In vitro assessment of transferrin-conjugated liposomes as drug delivery systems for inhalation
therapy of lung cancer
(2006) *European Journal of Pharmaceutical Sciences*, 29 (5), pp. 367-374.
DOCUMENT TYPE: Article

Sigurdsson, H.H., Loftsson, T., Lehr, C.-M.
Assessment of mucoadhesion by a resonant mirror biosensor
(2006) *International Journal of Pharmaceutics*, 325 (1-2), pp. 75-81.
DOCUMENT TYPE: Article

Stracke, F., Weiss, B., Lehr, C.-M., König, K., Schaefer, U.F., Schneider, M.
Multiphoton microscopy for the investigation of dermal penetration of nanoparticle-borne drugs
(2006) *Journal of Investigative Dermatology*, 126 (10), pp. 2224-2233.
DOCUMENT TYPE: Article

Netzlaff, F., Schaefer, U.F., Lehr, C.-M., Meiers, P., Stahl, J., Kietzmann, M., Niedorf, F.
Comparison of bovine udder skin with human and porcine skin in percutaneous permeation
experiments
(2006) *ATLA Alternatives to Laboratory Animals*, 34 (5), pp. 499-513.
DOCUMENT TYPE: Article

Steimer, A., Laue, M., Franke, H., Haltner-Ukomado, E., Lehr, C.M.

Porcine alveolar epithelial cells in primary culture: morphological, bioelectrical and immunocytochemical characterization.

(2006) *Pharmaceutical research*, 23 (9), pp. 2078-2093.

DOCUMENT TYPE: Article

Weiss, B., Schaefer, U.F., Zapp, J., Lamprecht, A., Stallmach, A., Lehr, C.-M.

Nanoparticles made of fluorescence-labelled poly(L-lactide-co-glycolide): Preparation, stability, and biocompatibility

(2006) *Journal of Nanoscience and Nanotechnology*, 6 (9-10), pp. 3048-3056.

DOCUMENT TYPE: Conference Paper

Kneuer, G., Ehrhardt, C., Bakowsky, H., Kumar, M.N.V.R., Oberle, V., Lehr, C.M., Hoekstra, D., Bakowsky, U.

The influence of physicochemical parameters on the efficacy of non-viral DNA transfection complexes: A comparative study

(2006) *Journal of Nanoscience and Nanotechnology*, 6 (9-10), pp. 2776-2782.

DOCUMENT TYPE: Conference Paper

Anabousi, S., Kleemann, E., Bakowsky, U., Kissel, T., Schmehl, T., Gessler, T., Seeger, W., Lehr, C.-M., Ehrhardt, G.

Effect of PEGylation on the stability of liposomes during nebulisation and in lung surfactant

(2006) *Journal of Nanoscience and Nanotechnology*, 6 (9-10), pp. 3010-3016.

DOCUMENT TYPE: Conference Paper

Löhbach, C., Neumann, D., Lehr, C.-M., Lamprecht, A.

Human vascular endothelial cells in primary cell culture for the evaluation of nanoparticle bioadhesion

(2006) *Journal of Nanoscience and Nanotechnology*, 6 (9-10), pp. 3303-3309.

DOCUMENT TYPE: Conference Paper

Luengo, J., Weiss, B., Schneider, M., Ehlers, A., Stracke, F., König, K., Kostka, K.-H., Lehr, C.-M., Schaefer, U.F.

Influence of nanoencapsulation on human skin transport of flufenamic acid

(2006) *Skin Pharmacology and Physiology*, 19 (4), pp. 190-197.

DOCUMENT TYPE: Article

Bur, M., Huwer, H., Lehr, C.-M., Hagen, N., Guldbrandt, M., Kim, K.-J., Ehrhardt, C.

Assessment of transport rates of proteins and peptides across primary human alveolar epithelial cell monolayers

(2006) *European Journal of Pharmaceutical Sciences*, 28 (3), pp. 196-203.

DOCUMENT TYPE: Article

Schäfer-Korting, M., Bock, U., Gamer, A., Haberland, A., Haltner-Ukomadu, E., Kaca, M., Kamp, H., Kietzmann, M., Korting, H.C., Krächter, H.-U., Lehr, C.-M., Liebsch, M., Mehling, A., Netzlauff, F., Niedorf, F., Rübbecke, M.K., Schäfer, U., Schmidt, E., Schreiber, S., Schröder, K.-R., Spielmann, H., Vuia, A.

Reconstructed human epidermis for skin absorption testing: Results of the German prevalidation study

(2006) *ATLA Alternatives to Laboratory Animals*, 34 (3), pp. 283-294.

DOCUMENT TYPE: Article

Taetz, S., Baldes, C., Mürdter, T.E., Kleideiter, E., Piotrowska, K., Bock, U., Haltner-Ukomadu, E., Mueller, J., Huwer, H., Schaefer, U.F., Klotz, U., Lehr, C.-M.

Biopharmaceutical characterization of the telomerase inhibitor BRACO19

(2006) Pharmaceutical Research, 23 (5), pp. 1031-1037.
DOCUMENT TYPE: Article

Netzlaff, F., Kostka, K.-H., Lehr, C.-M., Schaefer, U.F.
TEWL measurements as a routine method for evaluating the integrity of epidermis sheets in static Franz type diffusion cells in vitro. Limitations shown by transport data testing
(2006) European Journal of Pharmaceutics and Biopharmaceutics, 63 (1), pp. 44-50.
DOCUMENT TYPE: Article

Collnot, E.-M., Baldes, C., Wempe, M.F., Hyatt, J., Navarro, L., Edgar, K.J., Schaefer, U.F., Lehr, C.-M.
Influence of vitamin E TPGS poly(ethylene glycol) chain length on apical efflux transporters in Caco-2 cell monolayers
(2006) Journal of Controlled Release, 111 (1-2), pp. 35-40.
DOCUMENT TYPE: Article

Ehrhardt, C., Collnot, E.-M., Baldes, C., Becker, U., Laue, M., Kim, K.-J., Lehr, C.-M.
Towards an in vitro model of cystic fibrosis small airway epithelium: Characterisation of the human bronchial epithelial cell line CFBE41o-
(2006) Cell and Tissue Research, 323 (3), pp. 405-415.
DOCUMENT TYPE: Article

Baldes, C., Koenig, P., Neumann, D., Lenhof, H.-P., Kohlbacher, O., Lehr, C.-M.
Development of a fluorescence-based assay for screening of modulators of human Organic Anion Transporter 1B3 (OATP1B3)
(2006) European Journal of Pharmaceutics and Biopharmaceutics, 62 (1), pp. 39-43.
DOCUMENT TYPE: Article

Piotrowska, K., Kleideiter, E., Mürdter, T.E., Taetz, S., Baldes, C., Schaefer, U., Lehr, C.-M., Klotz, U.
Optimization of the TRAP assay to evaluate specificity of telomerase inhibitors
(2005) Laboratory Investigation, 85 (12), pp. 1565-1569.
DOCUMENT TYPE: Article

Haas, J., Ravi Kumar, M.N.V., Borchard, G., Bakowsky, U., Lehr, C.-M.
Preparation and characterization of chitosan and trimethyl-chitosan modified poly-(ε-caprolactone) nanoparticles as DNA carriers_aptad 20050810
(2005) AAPS PharmSciTech, 6 (1), art. no. 6, pp. E22-E30.
DOCUMENT TYPE: Article

Steimer, A., Haltner, E., Lehr, C.-M.
Cell culture models of the respiratory tract relevant to pulmonary drug delivery
(2005) Journal of Aerosol Medicine: Deposition, Clearance, and Effects in the Lung, 18 (2), pp. 137-182.
DOCUMENT TYPE: Review

Netzlaff, F., Lehr, C.-M., Wertz, P.W., Schaefer, U.F.
The human epidermis models EpiSkin®, SkinEthic® and EpiDerm®: An evaluation of morphology and their suitability for testing phototoxicity, irritancy, corrosivity, and substance transport
(2005) European Journal of Pharmaceutics and Biopharmaceutics, 60 (2), pp. 167-178.
DOCUMENT TYPE: Review

Anabousi, S., Laue, M., Lehr, C.-M., Bakowsky, U., Ehrhardt, C.
Assessing transferrin modification of liposomes by atomic force microscopy and transmission electron microscopy
(2005) *European Journal of Pharmaceutics and Biopharmaceutics*, 60 (2), pp. 295-303.
DOCUMENT TYPE: Conference Paper

Lehr, C.M.
GALENOS Euro-PhD in Advanced Drug Delivery: An innovative European Postgraduate Certificate for young pharmaceutical scientists, funded by the EU Marie Curie EST programme
(2005) *European Journal of Pharmaceutics and Biopharmaceutics*, 60 (2), pp. 315-316.
DOCUMENT TYPE: Article

Lehr, C.M.
Cell culture models and nanobiotechnology - Contemporary topics in advanced drug delivery research
(2005) *European Journal of Pharmaceutics and Biopharmaceutics*, 60 (2), pp. v-vi.
DOCUMENT TYPE: Editorial

Ehrhardt, C., Kneuer, C., Bies, C., Lehr, C.-M., Kim, K.-J., Bakowsky, U.
Salbutamol is actively absorbed across human bronchial epithelial cell layers
(2005) *Pulmonary Pharmacology and Therapeutics*, 18 (3), pp. 165-170.
DOCUMENT TYPE: Article

Becker, U., Ehrhardt, C., Schaefer, U.F., Gukasyan, H.J., Kim, K.-J., Lee, V.H.L., Lehr, C.-M.
Tissue distribution of moxaverine-hydrochloride in the rabbit eye and plasma
(2005) *Journal of Ocular Pharmacology and Therapeutics*, 21 (3), pp. 210-216.
DOCUMENT TYPE: Article

Yu, F., Li, P., Shen, H., Mathur, S., Lehr, C.-M., Bakowsky, U., Mücklich, F.
Laser interference lithography as a new and efficient technique for micropatterning of biopolymer surface
(2005) *Biomaterials*, 26 (15), pp. 2307-2312.
DOCUMENT TYPE: Article

Yu, F., Mücklich, F., Li, P., Shen, H., Mathur, S., Lehr, C.-M., Bakowsky, U.
In vitro cell response to a polymer surface micropatterned by laser interference lithography
(2005) *Biomacromolecules*, 6 (3), pp. 1160-1167.
DOCUMENT TYPE: Article

Ehrhardt, C., Kim, K.J., Lehr, C.M.
Isolation and culture of human alveolar epithelial cells.
(2005) *Methods in molecular medicine*, 107, pp. 207-216.
DOCUMENT TYPE: Article

Kim, K.-J., Borok, Z., Ehrhardt, C., Willis, B.C., Lehr, C.-M., Crandall, E.D.
Estimation of paracellular conductance of primary rat alveolar epithelial cell monolayers
(2005) *Journal of Applied Physiology*, 98 (1), pp. 138-143.
DOCUMENT TYPE: Article

Nakamura, T., Abu-Dahab, R., Menger, M.D., Schäfer, U., Vollmar, B., Wada, H., Lehr, C.-M., Schäfers, H.-J.

Depletion of alveolar macrophages by clodronate-liposomes aggravates ischemia - Reperfusion injury of the lung
(2005) *Journal of Heart and Lung Transplantation*, 24 (1), pp. 38-45.
DOCUMENT TYPE: Article

Kumar, M.N.V.R., Mohapatra, S.S., Kong, X., Jena, P.K., Bakowsky, U., Lehr, C.-M.
Cationic poly(lactide-co-glycolide) nanoparticles as efficient in vivo gene transfection agents
(2004) *Journal of Nanoscience and Nanotechnology*, 4 (8), art. no. 005, pp. 990-994.
DOCUMENT TYPE: Article

Ueda, M., Fuchs, S., Nakamura, T., Schäfer, U.F., Lehr, C.M., Menger, M.D., Schäfers, H.-J.
Reoxygenation results in cell death of human alveolar epithelial cells
(2004) *Journal of Heart and Lung Transplantation*, 23 (10), pp. 1198-1204.
DOCUMENT TYPE: Article

Ravi Kumar, M.N.V., Sameti, M., Mohapatra, S.S., Kong, X., Lockey, R.F., Bakowsky, U., Lindenblatt, G., Schmidt, H., Lehr, C.-M.
Cationic silica nanoparticles as gene carriers: Synthesis, characterization and transfection efficiency In vitro and In vivo
(2004) *Journal of Nanoscience and Nanotechnology*, 4 (7), pp. 876-881.
DOCUMENT TYPE: Article

Tabatt, K., Kneuer, C., Sameti, M., Olbrich, C., Müller, R.H., Lehr, C.-M., Bakowsky, U.
Transfection with different colloidal systems: Comparison of solid lipid nanoparticles and liposomes
(2004) *Journal of Controlled Release*, 97 (2), pp. 321-332.
DOCUMENT TYPE: Article

Ravi Kumar, M.N.V., Bakowsky, U., Lehr, C.M.
Preparation and characterization of cationic PLGA nanospheres as DNA carriers
(2004) *Biomaterials*, 25 (10), pp. 1771-1777.
DOCUMENT TYPE: Article

Lehr, C.-M., Gabor, F.
Lectins and glycoconjugates in drug delivery and targeting
(2004) *Advanced Drug Delivery Reviews*, 56 (4), pp. 419-420.
DOCUMENT TYPE: Editorial

Neumann, D., Lehr, C.-M., Lenhof, H.-P., Kohlbacher, O.
Computational modeling of the sugar-lectin interaction
(2004) *Advanced Drug Delivery Reviews*, 56 (4), pp. 437-457.
DOCUMENT TYPE: Review

Bies, C., Lehr, C.-M., Woodley, J.F.
Lectin-mediated drug targeting: History and applications
(2004) *Advanced Drug Delivery Reviews*, 56 (4), pp. 425-435.
DOCUMENT TYPE: Review

Tabatt, K., Sameti, M., Olbrich, C., Müller, R.H., Lehr, C.-M.
Effect of cationic lipid and matrix lipid composition on solid lipid nanoparticle-mediated gene transfer
(2004) *European Journal of Pharmaceutics and Biopharmaceutics*, 57 (2), pp. 155-162.
DOCUMENT TYPE: Article

Merkus, F., Lehr, C.-M.
Intranasal application of drugs with a systematic effect [Intranasale applikation von arzneistoffen mit systemischer wirkung]
(2004) Deutsche Apotheker Zeitung, 144 (4), pp. 61-65.
DOCUMENT TYPE: Article

Lehr, C.-M.
Drug transport at biological barriers: Mechanisms, models and methods in advancing drug delivery
(2003) Farmaceutvski Vestnik, 54 (SPEC. ISS.), pp. 301-302.
DOCUMENT TYPE: Conference Paper

Bakowsky, U., Lehr, C.-M.
Pharmaceutical nanobiotechnology: Membranes and tissues from the test tube [Pharmazeutische nanobiotechnologie: Membranen und gewebe aus der retorte]
(2003) Pharmazeutische Zeitung, 148 (49), pp. 18-24.
DOCUMENT TYPE: Article

Bakowsky, U., Lehr, C.-M.
Pharmaceutical nanobiotechnology: Nanoparticle as substance carrier [Pharmazeutische nanobiotechnologie: Nanopartikel als wirkstoffträger]
(2003) Pharmazeutische Zeitung, 148 (47), pp. 18-22.
DOCUMENT TYPE: Article

Sameti, M., Bohr, G., Ravi Kumar, M.N.V., Kneuer, C., Bakowsky, U., Nacken, M., Schmidt, H., Lehr, C.-M.
Stabilisation by freeze-drying of cationically modified silica nanoparticles for gene delivery
(2003) International Journal of Pharmaceutics, 266 (1-2), pp. 51-60.
DOCUMENT TYPE: Article

Li, P., Bakowsky, U., Yu, F., Loebach, C., Muecklich, F., Lehr, C.-M.
Laser ablation patterning by interference induces directional cell growth
(2003) IEEE Transactions on Nanobioscience, 2 (3), pp. 138-145.
DOCUMENT TYPE: Article

Fiegel, J., Ehrhardt, C., Schaefer, U.F., Lehr, C.-M., Hanes, J.
Large porous particle impingement on lung epithelial cell monolayers - Toward improved particle characterization in the lung
(2003) Pharmaceutical Research, 20 (5), pp. 788-796.
DOCUMENT TYPE: Article

Ehrhardt, C., Kneuer, C., Laue, M., Schaefer, U.F., Kim, K.-J., Lehr, C.-M.
16HBE14o- human bronchial epithelial cell layers express P-glycoprotein, lung resistance-related protein, and caveolin-1
(2003) Pharmaceutical Research, 20 (4), pp. 545-551.
DOCUMENT TYPE: Article

Nacken, M., Sameti, M., Lehr, C.-M., Schmidt, H.
Modified silica particles for gene delivery
(2003) Materials Science and Engineering C, 23 (1-2), pp. 93-97.
DOCUMENT TYPE: Article

Fuchs, S., Hollins, A.J., Laue, M., Schaefer, U.F., Roemer, K., Gumbleton, M., Lehr, C.-M.
Differentiation of human alveolar epithelial cells in primary culture: Morphological characterization and synthesis of caveolin-1 and surfactant protein-C
(2003) Cell and Tissue Research, 311 (1), pp. 31-45.
DOCUMENT TYPE: Article

Ruppert, C., Markart, P., Schmidt, R., Grimminger, F., Seeger, W., Lehr, C.-M., Günther, A.
Chemical crosslinking of urokinase to pulmonary surfactant protein B for targeting alveolar fibrin
(2003) Thrombosis and Haemostasis, 89 (1), pp. 53-64.
DOCUMENT TYPE: Article

Wagner, H., Kostka, K.-H., Lehr, C.-M., Schaefer, U.F.
pH profiles in human skin: Influence of two in vitro test systems for drug delivery testing
(2003) European Journal of Pharmaceutics and Biopharmaceutics, 55 (1), pp. 57-65.
DOCUMENT TYPE: Article

Sanchez, C., Mekhloufi, G., Schmitt, C., Renard, D., Robert, P., Lehr, C.-M., Lamprecht, A., Hardy, J.
Self-assembly of β -lactoglobulin and acacia gum in aqueous solvent: Structure and phase-ordering kinetics
(2002) Langmuir, 18 (26), pp. 10323-10333.
DOCUMENT TYPE: Article

Löhbach, C., Bakowsky, U., Kneuer, C., Jahn, D., Graeter, T., Schäfers, H.-J., Lehr, C.-M.
Wet chemical modification of PTFE implant surfaces with a specific cell adhesion molecule
(2002) Chemical Communications, 8 (21), pp. 2568-2569.
DOCUMENT TYPE: Article

Lamprecht, A., Stallmach, A., Kawashima, Y., Lehr, C.-M.
Carrier systems for the treatment of inflammatory bowel disease
(2002) Drugs of the Future, 27 (10), pp. 961-971.
DOCUMENT TYPE: Review

Wirth, M., Kneuer, C., Lehr, C.M., Gabor, F.
Lectin-mediated drug delivery: Discrimination between cytoadhesion and cytoinvasion and evidence for lysosomal accumulation of wheat germ agglutinin in the Caco-2 model
(2002) Journal of Drug Targeting, 10 (6), pp. 439-448.
DOCUMENT TYPE: Article

Ehrhardt, C., Fiegel, J., Fuchs, S., Abu-Dahab, R., Schaefer, U.F., Hanes, J., Lehr, C.-M.
Drug absorption by the respiratory mucosa: Cell culture models and particulate drug carriers
(2002) Journal of Aerosol Medicine: Deposition, Clearance, and Effects in the Lung, 15 (2), pp. 131-139.
DOCUMENT TYPE: Conference Paper

Wagner, H., Kostka, K.-H., Lehr, C.-M., Schaefer, U.F.
Correlation between stratum corneum/water-partition coefficient and amounts of flufenamic acid penetrated into the stratum corneum
(2002) Journal of Pharmaceutical Sciences, 91 (8), pp. 1915-1921.
DOCUMENT TYPE: Article

Ruppert, C., Schmidt, R., Grimminger, F., Suzuki, Y., Seeger, W., Lehr, C.-M., Günther, A.
Chemical coupling of a monoclonal antisurfactant protein-B antibody to human urokinase for targeting
surfactant-incorporating alveolar fibrin
(2002) *Bioconjugate Chemistry*, 13 (4), pp. 804-811.
DOCUMENT TYPE: Article

Ehrhardt, C., Kneuer, C., Fiegel, J., Hanes, J., Schaefer, U., Kim, K.-J., Lehr, C.-M.
Influence of apical fluid volume on the development of functional intercellular junctions in the human
epithelial cell line 16HBE14o-: Implications for the use of this cell line as an in vitro model for bronchial
drug absorption studies
(2002) *Cell and Tissue Research*, 308 (3), pp. 391-400.
DOCUMENT TYPE: Article

Haas, J., Lehr, C.-M.
Developments in the area of bioadhesive drug delivery systems
(2002) *Expert Opinion on Biological Therapy*, 2 (3), pp. 287-298.
DOCUMENT TYPE: Review

Wagner, H., Kostka, K.-H., Lehr, C.-M., Schaefer, U.F.
Human skin penetration of flufenamic acid: In vivo/in vitro correlation (deeper skin layers) for skin
samples from the same subject
(2002) *Journal of Investigative Dermatology*, 118 (3), pp. 540-544.
DOCUMENT TYPE: Article

Neumann, D., Kohlbacher, O., Lenhof, H.-P., Lehr, C.-M.
Lectin-sugar interaction: Calculated versus experimental binding energies
(2002) *European Journal of Biochemistry*, 269 (5), pp. 1518-1524.
DOCUMENT TYPE: Article

Olbrich, C., Bakowsky, U., Lehr, C.-M., Müller, R.H., Kneuer, C.
Cationic solid-lipid nanoparticles can efficiently bind and transfect plasmid DNA
(2001) *Journal of Controlled Release*, 77 (3), pp. 345-355.
DOCUMENT TYPE: Article

Lizio, R., Damm, M., Sarlikiotis, A.W., Bauer, H.H., Lehr, C.M.
Low-temperature micronization of a peptide drug in fluid propellant: case study cetorelix.
(2001) *AAPS PharmSciTech* [electronic resource], 2 (3), .
DOCUMENT TYPE: Article

Voshaar, Th., Kohlhäufel, M., Lehr, C.-M., Lindemann, H., Matthys, H., Meyer, T., Olschewski, H., Paul,
K.D., Rabe, F., Raschke, F., Scheuch, G., App, E.M., Schmehl, T., Schultze-Werninghaus, G., Ukena,
D., Worth, H., Berdel, D., Buhl, R., Fischer, J., Gessler, T., Haidl, P., Heyder, J., Köhler, D.
Recommendations for the choice of inhalatory systems for drug prescription [Empfehlungen für die
auswahl von inhalationssystemen zur medikamentenverabreichung]
(2001) *Pneumologie*, 55 (12), pp. 579-586.
DOCUMENT TYPE: Review

Lamprecht, A., Ubrich, N., Yamamoto, H., Schäfer, U., Takeuchi, H., Maincent, P., Kawashima, Y.,
Lehr, C.-M.
The muscarinic receptor agonist xanomeline has an antipsychotic-like profile in the rat
(2001) *Journal of Pharmacology and Experimental Therapeutics*, 299 (2), pp. 782-792.

DOCUMENT TYPE: Article

Lamprecht, A., Ubrich, N., Yamamoto, H., Schäfer, U., Takeuchi, H., Maincent, P., Kawashima, Y., Lehr, C-M

Biodegradable nanoparticles for targeted drug delivery in treatment of inflammatory bowel disease (2001) *Journal of Pharmacology and Experimental Therapeutics*, 299 (2), pp. 775-781.

DOCUMENT TYPE: Article

Gindorf, C., Steimer, A., Lehr, C.M., Bock, U., Schmitz, S., Haltner, E.

Marker transport across biological barriers in vitro: comparison of cell culture models for the gastrointestinal barrier, the blood-brain barrier and the alveolar epithelium of the lung [Markertransport über biologische Barrieren in vitro: Vergleich von Zellkulturmodellen für die Dünndarmschleimhaut, die Blut-Hirn Schranke und das Alveolarepithel der Lunge.]

(2001) *ALTEX : Alternativen zu Tierexperimenten*, 18 (3), pp. 155-164.

DOCUMENT TYPE: Article

Lamprecht, A., Schäfer, U., Lehr, C.-M.

Size-dependent bioadhesion of micro- and nanoparticulate carriers to the inflamed colonic mucosa (2001) *Pharmaceutical Research*, 18 (6), pp. 788-793.

DOCUMENT TYPE: Article

Lizio, R., Klenner, T., Sarlikiotis, A.W., Romeis, P., Marx, D., Nolte, T., Jahn, W., Borchard, G., Lehr, C.-M.

Systemic delivery of cetorelix to rats by a new aerosol delivery system

(2001) *Pharmaceutical Research*, 18 (6), pp. 771-779.

DOCUMENT TYPE: Article

Brück, A., Abu-Dahab, R., Borchard, G., Schäfer, U.F., Lehr, C.-M.

Lectin-functionalized liposomes for pulmonary drug delivery: Interaction with human alveolar epithelial cells

(2001) *Journal of Drug Targeting*, 9 (4), pp. 241-251.

DOCUMENT TYPE: Article

Wagner, H., Kostka, K.-H., Lehr, C.-M., Schaefer, U.F.

Interrelation of permeation and penetration parameters obtained from in vitro experiments with human skin and skin equivalents

(2001) *Journal of Controlled Release*, 75 (3), pp. 283-295.

DOCUMENT TYPE: Article

Abu-Dahab, R., Schäfer, U.F., Lehr, C.-M.

Lectin-functionalized liposomes for pulmonary drug delivery: Effect of nebulization on stability and bioadhesion

(2001) *European Journal of Pharmaceutical Sciences*, 14 (1), pp. 37-46.

DOCUMENT TYPE: Article

Lizio, R., Damm, M., Sarlikiotis, A.W., Bauer, H.H., Lehr, C.-M.

Low-temperature micronization of a peptide drug in fluid propellant: Case study cetorelix

(2001) *AAPS PharmSciTech*, 2 (3), .

DOCUMENT TYPE: Article

Lizio, R., Westhof, A., Lehr, C.-M., Klenner, T.

Oral endotracheal intubation of rats for intratracheal instillation and aerosol drug delivery
(2001) *Laboratory Animals*, 35 (3), pp. 257-260.
DOCUMENT TYPE: Article

Lizio, R., Marx, D., Nolte, T., Lehr, C.-M., Sarlikiotis, A.W., Borchard, G., Jahn, W., Klenner, T.
Development of a new aerosol delivery system for systemic pulmonary delivery in anaesthetized and orotracheal intubated rats
(2001) *Laboratory Animals*, 35 (3), pp. 261-270.
DOCUMENT TYPE: Article

Zghoul, N., Fuchs, R., Lehr, C.M., Schaefer, U.F.
Reconstructed skin equivalents for assessing percutaneous drug absorption from pharmaceutical formulations.
(2001) *ALTEX : Alternativen zu Tierexperimenten*, 18 (2), pp. 103-106.
DOCUMENT TYPE: Article

Lamprecht, A., Ubrich, N., Yamamoto, H., Schäfer, U., Takeuchi, H., Lehr, C.-M., Maincent, P., Kawashima, Y.
Design of rolipram-loaded nanoparticles: Comparison of two preparation methods
(2001) *Journal of Controlled Release*, 71 (3), pp. 297-306.
DOCUMENT TYPE: Article

Lamprecht, A., Schäfer, U., Lehr, C.-M.
Influences of process parameters on preparation of microparticle used as a carrier system for Ω - 3 unsaturated fatty acid ethyl esters used in supplementary nutrition
(2001) *Journal of Microencapsulation*, 18 (3), pp. 347-357.
DOCUMENT TYPE: Article

Lehr, C.M.
In vitro models of intestinal and alveolar epithelium cultures in pharmaceutical research [In vitro Modelle von Darm- und Lungen-Gewebekulturen in der pharmazeutischen Forschung.]
(2001) *ALTEX : Alternativen zu Tierexperimenten*, 18 (1), pp. 59-63.
DOCUMENT TYPE: Article

Schmitt, C., Sanchez, C., Lamprecht, A., Renard, D., Lehr, C.-M., De Kruif, C.G., Hardy, J.
Study of β -lactoglobulin/acacia gum complex coacervation by diffusing-wave spectroscopy and confocal scanning laser microscopy
(2001) *Colloids and Surfaces B: Biointerfaces*, 20 (3), pp. 267-280.
DOCUMENT TYPE: Article

Gershanik, T., Haltner, E., Lehr, C.-M., Benita, S.
Charge-dependent interaction of self-emulsifying oil formulations with Caco-2 cells monolayers: Binding, effects on barrier function and cytotoxicity
(2000) *International Journal of Pharmaceutics*, 211 (1-2), pp. 29-36.
DOCUMENT TYPE: Article

Kneuer, C., Sameti, M., Bakowsky, U., Schiestel, T., Schirra, H., Schmidt, H., Lehr, C.-M.
A nonviral DNA delivery system based on surface modified silica-nanoparticles can efficiently transfect cells in vitro
(2000) *Bioconjugate Chemistry*, 11 (6), pp. 926-932.
DOCUMENT TYPE: Article

Lamprecht, A., Rodero Torres, H., Schäfer, U., Lehr, C.-M.
Biodegradable microparticles as a two-drug controlled release formulation: A potential treatment of inflammatory bowel disease
(2000) Journal of Controlled Release, 69 (3), pp. 445-454.
DOCUMENT TYPE: Article

Lamprecht, A., Schäfer, U., Lehr, C.-M.
Structural analysis of microparticles by confocal laser scanning microscopy
(2000) AAPS PharmSciTech, 1 (3), .
DOCUMENT TYPE: Article

Wagner, H., Kostka, K.-H., Lehr, C.-M., Schaefer, U.F.
Drug distribution in human skin using two different in vitro test systems: Comparison with in vivo data
(2000) Pharmaceutical Research, 17 (12), pp. 1475-1481.
DOCUMENT TYPE: Article

Lamprecht, A., Schäfer, U., Lehr, C.M.
Structural analysis of microparticles by confocal laser scanning microscopy.
(2000) AAPS PharmSciTech [electronic resource], 1 (3), .
DOCUMENT TYPE: Article

Lamprecht, A., Schäfer, U.F., Lehr, C.-M.
Visualization and quantification of polymer distribution in microcapsules by confocal laser scanning microscopy (CLSM)
(2000) International Journal of Pharmaceutics, 196 (2), pp. 223-226.
DOCUMENT TYPE: Short Survey

Lamprecht, A., Ubrich, N., Hombreiro Pérez, M., Lehr, C.-M., Hoffman, M., Maincent, P.
Influences of process parameters on nanoparticle preparation performed by a double emulsion pressure homogenization technique
(2000) International Journal of Pharmaceutics, 196 (2), pp. 177-182.
DOCUMENT TYPE: Article

Kneuer, C., Sameti, M., Haltner, E.G., Schiestel, T., Schirra, H., Schmidt, H., Lehr, C.-M.
Silica nanoparticles modified with aminosilanes as carriers for plasmid DNA
(2000) International Journal of Pharmaceutics, 196 (2), pp. 257-261.
DOCUMENT TYPE: Article

Lehr, C.-M.
Lectin-mediated drug delivery: The second generation of bioadhesives
(2000) Journal of Controlled Release, 65 (1-2), pp. 19-29.
DOCUMENT TYPE: Review

Lamprecht, A., Schäfer, U.F., Lehr, C.-M.
Characterization of microcapsules by confocal laser scanning microscopy: Structure, capsule wall composition and encapsulation rate
(2000) European Journal of Pharmaceutics and Biopharmaceutics, 49 (1), pp. 1-9.
DOCUMENT TYPE: Article

Lizio, R., Klenner, T., Borchard, G., Romeis, P., Sarlikiotis, A.W., Reissmann, T., Lehr, C.-M.

Systemic delivery of the GnRH antagonist cetrorelix by intratracheal instillation in anesthetized rats
(2000) *European Journal of Pharmaceutical Sciences*, 9 (3), pp. 253-258.
DOCUMENT TYPE: Article

Shen, J., Elbert, K.J., Yamashita, F., Lehr, C.-M., Kim, K.-J., Lee, V.H.L.
Organic cation transport in rabbit alveolar epithelial cell monolayers
(1999) *Pharmaceutical Research*, 16 (8), pp. 1280-1287.
DOCUMENT TYPE: Article

Lamprecht, A., Ubrich, N., Hombreiro Pérez, M., Lehr, C.-M., Hoffman, M., Maincent, P.
Biodegradable monodispersed nanoparticles prepared by pressure homogenization-emulsification
(1999) *International Journal of Pharmaceutics*, 184 (1), pp. 97-105.
DOCUMENT TYPE: Article

Elbert, K.J., Schäfer, U.F., Schäfers, H.-J., Kim, K.-J., Lee, V.H.L., Lehr, C.-M.
Monolayers of human alveolar epithelial cells in primary culture for pulmonary absorption and transport studies
(1999) *Pharmaceutical Research*, 16 (5), pp. 601-608.
DOCUMENT TYPE: Article

Lehr, Claus-Michael
Targeting and overcoming biological barriers by lectins and invasins
(1999) *American Chemical Society, Polymer Preprints, Division of Polymer Chemistry*, 40 (1), pp. 265-266.
DOCUMENT TYPE: Conference Paper

Abu-Dahab, R., Schaefer, U., Lehr, C.-M.
Stability of 1,2-dipalmitoyl-glycero-3-phosphocholine (DPPC) and lectin functionalized DPPC liposomes to nebulization
(1999) *Proceedings of the Controlled Release Society*, (26), pp. 817-818.
DOCUMENT TYPE: Conference Paper

Schiestel, T., Schirra, H., Gerwann, J., Lesniak, C., Kalaghi-Nafchi, A., Sameti, M., Borchard, G., Haltner, E., Lehr, C.-M., Schmidt, H.
Development of a flexible cell targeting system based on silica nanoparticles
(1998) *Materials Research Society Symposium - Proceedings*, 530, pp. 65-71.
DOCUMENT TYPE: Conference Paper

Bock, U., Kolac, C., Borchard, G., Koch, K., Fuchs, R., Streichhan, P., Lehr, C.-M.
Transport of proteolytic enzymes across Caco-2 cell monolayers
(1998) *Pharmaceutical Research*, 15 (9), pp. 1393-1400.
DOCUMENT TYPE: Article

Lehr, C.-M.
The molecular basis of bioadhesion
(1998) *Journal of Pharmacy and Pharmacology*, 50 (SUPPL. 9), p. 11.
DOCUMENT TYPE: Article

Borchard, G., Kalaghi-Nafchi, A., Schiestel, T., Lesniak, C., Schmidt, H., Lehr, C.-M.
Binding of a versatile targeting system to L-132 cells
(1998) *Proceedings of the Controlled Release Society*, (25), pp. 685-686.

DOCUMENT TYPE: Conference Paper

Wagner, H., Kostka, H.K., Lehr, C.-M., Schaefer, U.F.
Comparison of human skin ex-vivo penetration/permeation models
(1998) Proceedings of the Controlled Release Society, (25), pp. 547-548.
DOCUMENT TYPE: Conference Paper

Lehr, C.M., Haltner, E.
Binding and uptake of plant lectins by Caco-2 cells
(1997) FASEB Journal, 11 (3), .
DOCUMENT TYPE: Article

Sattler, S., Schaefer, U., Schneider, W., Hoelzl, J., Lehr, C.-M.
Binding, uptake, and transport of hypericin by Caco-2 cell monolayers
(1997) Journal of Pharmaceutical Sciences, 86 (10), pp. 1120-1126.
DOCUMENT TYPE: Article

Christmann, V., Rosenberg, J., Seega, J., Lehr, C.-M.
Simultaneous in vivo visualization and localization of solid oral dosage forms in the rat gastrointestinal tract by magnetic resonance imaging (MRI)
(1997) Pharmaceutical Research, 14 (8), pp. 1066-1072.
DOCUMENT TYPE: Article

Becker, H., Hartmann, R., Kallmayer, H.-J., Lehr, C.-M., Loth, H., Maurer, H.H.
Pharmaceutics at the University of the Saarland [Die Pharmazie an der Universitat des Saarlandes]
(1997) Pharmazie in Unserer Zeit, 26 (4), pp. 199-201.
DOCUMENT TYPE: Short Survey

Haltner, E., Easson, J.H., Lehr, C.-M.
Lectins and bacterial invasion factors for controlling endo- and transcytosis of bioadhesive drug carrier systems
(1997) European Journal of Pharmaceutics and Biopharmaceutics, 44 (1), pp. 3-13.
DOCUMENT TYPE: Conference Paper

Lueßen, H.L., Rentel, C.-O., Kotzé, A.F., Lehr, C.-M., De Boer, A.G., Verhoef, J.C., Junginger, H.E.
Mucoadhesive polymers in peroral peptide drug delivery. IV. Polycarbophil and chitosan are potent enhancers of peptide transport across intestinal mucosae in vitro
(1997) Journal of Controlled Release, 45 (1), pp. 15-23.
DOCUMENT TYPE: Article

Haltner, E., Lehr, C.-M.
Two distinctive classes of plant lectins and their utilization for controlled drug delivery to epithelial cells
(1997) Proceedings of the Controlled Release Society, (24), pp. 49-50.
DOCUMENT TYPE: Conference Paper

Lehr, C.-M., Bruck, A., Borchard, G.
Lectin-functionalized liposomes for alveolar drug delivery
(1997) Proceedings of the Controlled Release Society, (24), pp. 77-78.
DOCUMENT TYPE: Article

Easson, J.H., Jahn, D., Lehr, C.-M.
Utilizing bacterial mechanisms of cell entry for the design of bioinvasive drug carriers
(1997) Proceedings of the Controlled Release Society, (24), pp. 101-102.
DOCUMENT TYPE: Conference Paper

Elbert, K.J., Okamoto, C.T., Lee, V.H.L., Lehr, C.M., Crandall, E.D., Kim, K.J.
Polymeric immunoglobulin receptors (plgr) in rat alveolar epithelial monolayers
(1996) FASEB Journal, 10 (3), .
DOCUMENT TYPE: Article

Kaiho, F., Lueßen, H.L., Lehr, C.-M., Verhoef, J.C., Junginger, H.E.
Disintegration and gel forming behaviour of carbomer and its sodium salt used as excipients for direct compression
(1996) S.T.P. Pharma Sciences, 6 (6), pp. 385-389.
DOCUMENT TYPE: Article

Schnurrer, J., Lehr, C.-M.
Mucoadhesive properties of the mussel adhesive protein
(1996) International Journal of Pharmaceutics, 141 (1-2), pp. 251-256.
DOCUMENT TYPE: Short Survey

Lehr, C.-M.
From sticky stuff to sweet receptors - achievements, limits and novel approaches to bioadhesion
(1996) European Journal of Drug Metabolism and Pharmacokinetics, 21 (2), pp. 139-148.
DOCUMENT TYPE: Conference Paper

Borchard, G., Lueßen, H.L., De Boer, A.G., Verhoef, J.C., Lehr, C.-M., Junginger, H.E.
The potential of mucoadhesive polymers in enhancing intestinal peptide drug absorption. III: Effects of chitosan-glutamate and carbomer on epithelial tight junctions in vitro
(1996) Journal of Controlled Release, 39 (2-3), pp. 131-138.
DOCUMENT TYPE: Conference Paper

Lueßen, H.L., De Leeuw, B.J., Pérard, D., Lehr, C.-M., De Boer, A.G., Verhoef, J.C., Junginger, H.E.
Mucoadhesive polymers in peroral peptide drug delivery. I. Influence of mucoadhesive excipients on the proteolytic activity of intestinal enzymes
(1996) European Journal of Pharmaceutical Sciences, 4 (2), pp. 117-128.
DOCUMENT TYPE: Article

Elbert, K.J., Okamoto, C.T., Lehr, C.M., Lee, V.H.L., Crandall, E.D., Kim, K.J.
The polymeric immunoglobulin receptor (plgR) in rat alveolar epithelial cells as a possible target for facilitation of drug or gene delivery
(1996) Proceedings of the Controlled Release Society, (23), pp. 445-446.
DOCUMENT TYPE: Conference Paper

Kolac, C., Streichhan, P., Lehr, C.-M.
Oral bioavailability of proteolytic enzymes
(1996) European Journal of Pharmaceutics and Biopharmaceutics, 42 (4), pp. 222-232.
DOCUMENT TYPE: Review

Easson, J.H., Hungerer, Ch., Jahn, D., Lehr, C.-M.
Bioinvasive drug carrier systems for oral delivery of peptides and proteins

(1996) Proceedings of the Controlled Release Society, (23), pp. 851-852.
DOCUMENT TYPE: Conference Paper

Kolac, C., Lehr, C.-M.
Transport of proteolytic enzymes across Caco-2 monolayers
(1996) Proceedings of the Controlled Release Society, (23), pp. 587-588.
DOCUMENT TYPE: Conference Paper

Christmann, V., Elger, B., Rosenberg, J., Seega, J., Lehr, C.-M.
Visualization of solid oral dosage forms in the G.I. tract by combined 1H- and 19F-MRI
(1996) Proceedings of the Controlled Release Society, (23), pp. 569-570.
DOCUMENT TYPE: Conference Paper

Haltner, E., Basten, R., Borchard, G., Antonietti, M., Lehr, C.M.
Binding and uptake of lectin-functionalized nanolatexes by caco-2 cell monolayers
(1995) Proceedings of the Controlled Release Society, (22), pp. 248-249.
DOCUMENT TYPE: Conference Paper

Christmann, V., Rosenberg, J., Seega, J., Elger, B., Lehr, C.-M.
Magnetic resonance imaging of a tablet formulation in vivo in the gastrointestinal tract of the rat
(1995) Proceedings of the Controlled Release Society, (22), pp. 304-305.
DOCUMENT TYPE: Conference Paper

Schnurrer, J., Lehr, C.-M.
Mucoadhesive properties of the Mussel Adhesive Protein (MAP)
(1995) Proceedings of the Controlled Release Society, (22), pp. 306-307.
DOCUMENT TYPE: Conference Paper

Luessen, H.L., Verhoef, J.C., Borchard, G., Lehr, C.-M., De Boer, A.G., Junginger, H.E.
Mucoadhesive polymers in peroral peptide drug delivery. II. Carbomer and polycarbophil are potent inhibitors of the intestinal proteolytic enzyme trypsin
(1995) Pharmaceutical Research, 12 (9), pp. 1293-1298.
DOCUMENT TYPE: Article

Lehr, C.-M.
Bioadhesion technologies for the delivery of peptide and protein drugs to the gastrointestinal tract
(1994) Critical Reviews in Therapeutic Drug Carrier Systems, 11 (2-3), pp. 119-160.
DOCUMENT TYPE: Review

Lueßen, H.L., Verhoef, J.C., Perard, D., Lehr, C.-M., de Boer, A.G., Junginger, H.E.
P257 FDA approved poly(acrylates) inhibit intestinal proteases
(1994) European Journal of Pharmaceutical Sciences, 2 (1-2), p. 183.
DOCUMENT TYPE: Article

Borchard, G., deBoer, A.G., Lehr, C.-M., Junginger, H.E.
FC55 effects of carbomer on tight junctions between Caco-2 cells
(1994) European Journal of Pharmaceutical Sciences, 2 (1-2), p. 114.
DOCUMENT TYPE: Article

Lueßen, H.L., Lehr, C.-M., Rentel, C.-O., Noach, A.B.J., De Boer, A.G., Verhoef, J.C., Junginger, H.E.

Bioadhesive polymers for the peroral delivery of peptide drugs
(1994) Journal of Controlled Release, 29 (3), pp. 329-338.
DOCUMENT TYPE: Conference Paper

Yamahara, H., Lehr, C.-M., Lee, V.H.L., Kim, K.-J.
Fate of insulin during transit across rat alveolar epithelial cell monolayers
(1994) European Journal of Pharmaceutics and Biopharmaceutics, 40 (5), pp. 294-298.
DOCUMENT TYPE: Article

Luessen, H.L., Verhoef, J.C., Lehr, C.-M., De Boer, A.G., Junginger, H.E.
Mucoadhesive poly(acrylates) are inhibitors of the intestinal proteases trypsin and carboxypeptidase A
(1994) Proceedings of the Controlled Release Society, (21), pp. 130-131.
DOCUMENT TYPE: Conference Paper

Lehr, C.-M., Lee, Y.-H., Lee, V.H.L.
Improved ocular penetration of gentamicin by mucoadhesive polymer polycarbophil in the pigmented rabbit
(1994) Investigative Ophthalmology and Visual Science, 35 (6), pp. 2809-2814.
DOCUMENT TYPE: Article

Lehr, C.-M., Kok, W., Koninkx, J.
The effect of bioadhesive lectins on the barrier function of Caco-2 cell monolayers
(1994) Proceedings of the Controlled Release Society, (21), pp. 344-345.
DOCUMENT TYPE: Conference Paper

Lehr, C.-M., Lee, V.H.L.
Binding and transport of some bioadhesive plant lectins across Caco-2 cell monolayers
(1993) Pharmaceutical Research, 10 (12), pp. 1796-1799.
DOCUMENT TYPE: Article

Lehr, C.M.
Pharmaceutical technology - A theme with variations [PHARMAZEUTISCHE TECHNOLOGIE - EIN THEMA MIT VARIATIONEN]
(1993) Deutsche Apotheker Zeitung, 133 (49), pp. 17-19.
DOCUMENT TYPE: Article

Lehr, C.-M., Bodde, H.E., Bouwstra, J.A., Junginger, H.E.
A surface energy analysis of mucoadhesion. II. Prediction of mucoadhesive performance by spreading coefficients
(1993) European Journal of Pharmaceutical Sciences, 1 (1), pp. 19-30.
DOCUMENT TYPE: Article

Luessen, H.L., Lehr, C.-M., Verhoef, J.C., de Boer, A.G., Junginger, H.E.
Derivatives of poly(acrylic acid) influence the degradation activity of the proteolytic enzyme trypsin
(1993) Proceedings of the Controlled Release Society, (20), pp. 268-269.
DOCUMENT TYPE: Conference Paper

Rentel, C.-O., Lehr, C.-M., Bouwstra, J.A., Luessen, H.L., Junginger, H.E.
Enhanced peptide absorption by the mucoadhesive polymers polycarbophil and chitosan
(1993) Proceedings of the Controlled Release Society, (20), pp. 446-447.
DOCUMENT TYPE: Conference Paper

Yoshida, H., Lehr, C.-M., Kok, W., Junginger, H.E., Verhoef, J.C., Bouwstra, J.A.
Niosomes for oral delivery of peptide drugs
(1992) *Journal of Controlled Release*, 21 (1-3), pp. 145-154.
DOCUMENT TYPE: Conference Paper

Lehr, C.-M.
Bioadhesive drug delivery systems for oral application
(1992) *Pharmaceutisch Weekblad - Scientific Edition*, 14 (3), pp. 95-96.
DOCUMENT TYPE: Note

Lehr, C.-M., Bouwstra, J.A., Spies, F., Onderwater, J., Van Het Noordeinde, J., Vermeij-Keers, C., Van Munsteren, C.J., Junginger, H.E.
Visualization studies of the mucoadhesive interface
(1992) *Journal of Controlled Release*, 18 (3), pp. 249-260.
DOCUMENT TYPE: Article

Lehr, C.-M., Bouwstra, J.A., Schacht, E.H., Junginger, H.E.
In vitro evaluation of mucoadhesive properties of chitosan and some other natural polymers
(1992) *International Journal of Pharmaceutics*, 78 (1), pp. 43-48.
DOCUMENT TYPE: Article

Lehr, C.-M., Bouwstra, J.A., Van Hal, D.A., Verhoef, J.C., Junginger, H.E.
Release of a peptide drug from microspheres of poly(2-hydroxyethyl-methacrylate) relevant for the development of an oral bioadhesive drug delivery system
(1992) *European Journal of Pharmaceutics and Biopharmaceutics*, 38 (2), pp. 55-60.
DOCUMENT TYPE: Article

Lehr, C.-M., Bouwstra, J.A., Bodde, H.E., Junginger, H.E.
A surface energy analysis of mucoadhesion: Contact angle measurements on polycarbophil and pig intestinal mucosa in physiologically relevant fluids
(1992) *Pharmaceutical Research*, 9 (1), pp. 70-75.
DOCUMENT TYPE: Article

Lehr, C.-M., Bouwstra, J.A., Kok, W., Noach, A.B.J., De Boer, A.G., Junginger, H.E.
Bioadhesion by means of specific binding of tomato lectin
(1992) *Pharmaceutical Research*, 9 (4), pp. 547-553.
DOCUMENT TYPE: Article

Lehr, C.-M., Bouwstra, J.A., Kok, W., De Boer, A.G., Tukker, J.J., Verhoef, J.C., Breimer, D.D., Junginger, H.E.
Effects of the mucoadhesive polymer polycarbophil on the intestinal absorption of a peptide drug in the rat
(1992) *Journal of Pharmacy and Pharmacology*, 44 (5), pp. 402-407.
DOCUMENT TYPE: Article

Lehr, C.-M., Poelma, F.G.J., Junginger, H.E., Tukker, J.J.
An estimate of turnover time of intestinal mucus gel layer in the rat in situ loop
(1991) *International Journal of Pharmaceutics*, 70 (3), pp. 235-240.
DOCUMENT TYPE: Article

Lehr, C.-M., Bouwstra, J.A., Tukker, J.J., Junginger, H.E.
Intestinal transit of bioadhesive microspheres in an in situ loop in the rat - A comparative study with copolymers and blends based on poly(acrylic acid)
(1990) Journal of Controlled Release, 13 (1), pp. 51-62.
DOCUMENT TYPE: Article

Juninger, H.E., Lehr, C.-M.
Bioadhesive drug delivery systems and oral and rectal drug administration [BIOADHASIVE ARZNEISTOFFABGABESYSTEME UND ARZNEIFORMEN FUR PERORALE UND REKTALE ANWENDUNG]
(1990) Deutsche Apotheker Zeitung, 130 (15), pp. 791-801.
DOCUMENT TYPE: Article

Junginger, H.E., Lehr, C.-M., Bouwstra, J.A.
Site-specific intestinal peptide delivery using bioadhesive microspheres
(1990) Drug News and Perspectives, 3 (6), pp. 352-356.
DOCUMENT TYPE: Short Survey