

文献リスト

2018 年

Brain Delivery of Multifunctional Dendrimer Protein Bioconjugates

P. Moscarello, D.Y.W. Ng, M. Jansen, T. Weil, H.J. Luhmann, J. Hedrich
Adv. Sci. 1700897, 1700897 (2018). → doi: [10.1002/adv.201700897](https://doi.org/10.1002/adv.201700897)

Importance of the IL-1 Axis in Haemophilus influenzae-stimulated M1 Macrophages Driving Transepithelial Signaling

S. Mang, A. Braun, N. Pairet, D.J. Lamb
Am. J. Respir. Cell Mol. Biol. 58, 412 (2018). → doi: [10.1165/rcmb.2017-0283LE](https://doi.org/10.1165/rcmb.2017-0283LE)

Effects of arsenolipids on in vitro blood-brain barrier model

S.M. Müller, F. Ebert, G. Raber, S. Meyer, J. Bornhorst, S. Hüwel, H.-J. Galla, K.A. Francesconi, T. Schwerdtle
Arch. Toxicol. 92, 823 (2018). → doi: [10.1007/s00204-017-2085-8](https://doi.org/10.1007/s00204-017-2085-8)

Reversible opening of the blood-brain barrier by claudin-5-binding variants of Clostridium perfringens enterotoxin's claudin-binding domain

W. Neuhaus, A. Piontek, J. Protze, M. Eichner, A. Mahringer, E.-A. Subileau, I.-F.M. Lee, J.D. Schulzke, G. Krause, J. Piontek
Biomaterials 161, 129 (2018). → doi: [10.1016/j.biomaterials.2018.01.028](https://doi.org/10.1016/j.biomaterials.2018.01.028)

HtrA1 Mediated Intracellular Effects on Tubulin Using a Polarized RPE Disease Model

E. Melo, P. Oertle, C. Trepp, H. Meistermann, T. Burgoyne, L. Sborgi, A.C. Cabrera, Ch.-Y. Chen, J.-Ch. Hoflack, T. Kam-Thong, R. Schmucki, L. Badi, N. Flint, Z.E. Ghiani, F. Delobel, C. Stucki, G. Gromo, A. Einhaus, B. Hornsperger, S. Golling, J. Siebourg-Polster, F. Gerber, B. Bohrmann, C. Futter, T. Dunkley, S. Hiller, O. Schilling, V. Enzmann, S. Fauser, M. Plodinec, R. Iaconet
EBioMedicine 27, 258 (2018). → doi: [10.1016/j.ebiom.2017.12.011](https://doi.org/10.1016/j.ebiom.2017.12.011)

Real-time acquisition of transendothelial electrical resistance in an all-human, in vitro, 3-dimensional, blood-brain barrier model exemplifies tight-junction integrity

Z. Maherally, H.L. Fillmore, S.L. Tan, S.F. Tan, S.A. Jassam, F.I. Quack, K.E. Hatherell, G.J. Pilkington
FASEB J. 32, 168 (2018). → doi: [10.1096/fj.201700162R](https://doi.org/10.1096/fj.201700162R)

Alteration of sphingolipid metabolism as a putative mechanism underlying LPS-induced BBB disruption

R. Vutukuri, R. Brunkhorst, R.-I. Kestner, L. Hansen, N.F. Bouzas, J. Pfeilschifter, K. Devraj, W. Pfeilschifter
J. Neurochem. 144, 172 (2018). → doi: [10.1111/jnc.14236](https://doi.org/10.1111/jnc.14236)

Bovine dairy complex lipids improve in vitro measures of small intestinal epithelial barrier integrity

R.C. Anderson, A.K.H. MacGibbon, N. Haggarty, K.M. Armstrong, N.C. Roy
PLoS One 13, e0190839 (2018). → doi: [10.1371/journal.pone.0190839](https://doi.org/10.1371/journal.pone.0190839)

Rhombic organization of microvilli domains found in a cell model of the human intestine

J. Franz, J. Grünebaum, M. Schäfer, D. Mulac, F. Rehfeldt, K. Langer, A. Kramer, Ch. Riethmüller
PLoS One 13, e0189970 (2018). → doi: [10.1371/journal.pone.0189970](https://doi.org/10.1371/journal.pone.0189970)

A novel human induced pluripotent stem cell blood-brain barrier model: Applicability to study antibody-triggered receptor-mediated transcytosis

M. Ribocco-Lutkiewicz, C. Sodja, J. Haukenfrers, A.S. Haqqani, D. Ly, P. Zachar, E. Baumann, M. Ball, J. Huang, M. Rukhlova, M. Martina, Q. Liu, D. Stanimirovic, A. Jezierski, M. Bani-Yaghoub
Sci. Rep. 8, 1873 (2018). → doi: [10.1038/s41598-018-19522-8](https://doi.org/10.1038/s41598-018-19522-8)

Optimized procedures for generating an enhanced, near physiological 2D culture system from porcine intestinal organoids

B. van der Hee, L.M.P. Loonen, N. Taverne, J.J. Taverne-Thiele, H. Smidt, J.M. Wells
Stem Cell Res. 28, 165 (2018). → doi: [10.1016/j.scr.2018.02.013](https://doi.org/10.1016/j.scr.2018.02.013)

Localized delivery of curcumin into brain with polysorbate 80-modified cerasomes by ultrasound-targeted microbubble destruction for improved Parkinson's disease therapy

N. Zhang, F. Yan, X. Liang, M. Wu, Y. Shen, M. Chen, Y. Xu, G. Zou, P. Jiang, C. Tang, H. Zheng, Z. Dai
Theranostics 8, 2264 (2018). → doi: [10.7150/thno.23734](https://doi.org/10.7150/thno.23734)

2017 年

Towards quantification of toxicity of lithium ion battery electrolytes - development and validation of a liquid-liquid extraction GC-MS method for the determination of organic carbonates in cell culture materials

J. Strehlau, T. Weber, C. Lürenbaum, J. Bornhorst, H.-J. Galla, T. Schwerdtle, M. Winter, S. Nowak
Anal. Bioanal. Chem. 409, 6123 (2017). → doi: [10.1007/s00216-017-0549-6](https://doi.org/10.1007/s00216-017-0549-6)

Zonula occludens-2 regulates Rho proteins activity and the development of epithelial cytoarchitecture and barrier function

A. Raya-Sandino, A. Castillo-Kauil, A. Domínguez-Calderón, L. Alarcón, D. Flores-Benitez, F. Cuellar-Perez, B. López-Bayghen, B. Chávez-Munguía, J. Vázquez-Prado, L. González-Mariscal
Biochim. Biophys. Acta Mol. Cell Res. 1864, 1714 (2017). → doi: [10.1016/j.bbamcr.2017.05.016](https://doi.org/10.1016/j.bbamcr.2017.05.016)

Chemokine CCL17 is expressed by dendritic cells in the CNS during experimental autoimmune encephalomyelitis and promotes pathogenesis of disease

Ch. Ruland, H. Renken, I. Kuzmanov, A.F. Mehr, K. Schwarte, M. Cerina, A. Herrmann, D.-M. Otte, A. Zimmer, N. Schwab, S.G. Meuth, V. Arolt, L. Klotz, I. Förster, S. Scheu, J. Alferink
Brain Behav. Immun. 66, 382 (2017). → doi: [10.1016/j.bbi.2017.06.010](https://doi.org/10.1016/j.bbi.2017.06.010)

Shear stress-regulated miR-27b controls pericyte recruitment by repressing SEMA6A and SEMA6D

S. Demolli, A. Doddaballapur, K. Devraj, K. Stark, Y. Manavski, A. Eckart, Ch.M. Zehendner, T. Lucas, T. Korff, M. Hecker, S. Massberg, S. Liebner, D. Kaluza, R.A. Boon, S. Dimmeler
Cardiovasc. Res. 113, 681 (2017). → doi: [10.1093/cvr/cvx032](https://doi.org/10.1093/cvr/cvx032)

Endothelial Basement Membrane Laminin 511 Contributes to Endothelial Junctional Tightness and Thereby Inhibits Leukocyte Transmigration

J. Song, X. Zhang, K. Buscher, Y. Wang, H. Wang, J. Di Russo, L. Li, L. Lütke-Enking, A. Zarbock, A. Stadtmann, P. Striewski, B. Wirth, I. Kuzmanov, H. Wiendl, D. Schulte, D. Vestweber, L. Sorokin
Cell Rep. 18, 1256 (2017). → doi: [10.1016/j.celrep.2016.12.092](https://doi.org/10.1016/j.celrep.2016.12.092)

The ESRP1-GPR137 axis contributes to intestinal pathogenesis

L.F. Mager, V.H. Koelzer, R. Stuber, L. Thoo, I. Keller, I. Koeck, M. Langenegger, C. Simillion, S.P. Pfister, M. Faderl, V. Genitsch, I. Tcymbarevich, P. Juillerat, X. Li, Y. Xia, E. Karamitopoulou, R. Lyck, I. Zlobec, S. Hapfelmeier, R. Bruggmann, K.D. McCoy, A.J. Macpherson, Ch. Müller, B. Beutler, P. Krebs
eLife 6, e28366 (2017). → doi: [10.7554/eLife.28366](https://doi.org/10.7554/eLife.28366)

Loss of Mpdz impairs ependymal cell integrity leading to perinatal-onset hydrocephalus in mice

A. Feldner, M.G. Adam, F. Tetzlaff, I. Moll, D. Komljenovic, F. Sahm, T. Bäuerle, H. Ishikawa, H. Schroten, T. Korff, I. Hofmann, H. Wolburg, A. von Deimling, A. Fischer
EMBO Mol. Med. 9, 890 (2017). → doi: [10.15252/emmm.201606430](https://doi.org/10.15252/emmm.201606430)

Andrographolide-loaded nanoparticles for brain delivery: Formulation, characterisation and in vitro permeability using hCMEC/D3 cell line

C. Guccione, M. Oufir, V. Piazzini, D.E. Eigenmann, E.A. Jähne, V. Zabela, M.T. Faleschini, M.C. Bergonzi, M. Smiesko, M. Hamburger, A.R. Biliat
Eur. J. Pharm. Biopharm. 119, 253 (2017). → doi: [10.1016/j.ejpb.2017.06.018](https://doi.org/10.1016/j.ejpb.2017.06.018)

Ouabain promotes partial epithelial to mesenchymal transition (EMT) changes in human autosomal dominant polycystic kidney disease (ADPKD) cells

J. Venugopal, J. McDermott, G. Sanchez, M. Sharma, L. Barbosa, G.A. Reif, D.P. Wallace, G. Blancot
Exp. Cell Res. 355, 142 (2017). → doi: [10.1016/j.yexcr.2017.04.001](https://doi.org/10.1016/j.yexcr.2017.04.001)

Regulated efflux of photoreceptor outer segment-derived cholesterol by human RPE cells

F. Storti, G. Raphael, V. Griesser, K. Klee, F. Drawnel, C. Willburger, R. Scholz, T. Langmann, A. von Eckardstein, J. Fingerle, Ch. Grimm, C. Maugeais
Exp. Eye Res. 165, 65 (2017). → doi: [10.1016/j.exer.2017.09.008](https://doi.org/10.1016/j.exer.2017.09.008)

Gb3-binding lectins as potential carriers for transcellular drug delivery

S.K. Müller, I. Wilhelm, T. Schubert, K. Zittlau, A. Imberty, J. Madl, T. Eierhoff, R. Thuenauer, W. Römer
Expert Opin. Drug Delivery 14, 141 (2017). → doi: [10.1080/17425247.2017.1266327](https://doi.org/10.1080/17425247.2017.1266327)

Primary porcine brain endothelial cells as in vitro model to study effects of ultrasound on blood-brain barrier function

S. Lèlu, M. Afadzi, S. Berg, A.K.O. Åslund, S.H. Torp, W. Sattler, C. de L. Davies
IEEE Trans. Sonics Ultrason. 64, 281 (2017). → doi: [10.1109/TUFFC.2016.2597004](https://doi.org/10.1109/TUFFC.2016.2597004)

Influence of the Fruit Juice Carriers on the Ability of *Lactobacillus plantarum* DSM20205 to Improve in Vitro Intestinal Barrier Integrity and Its Probiotic Properties

E. Valero-Cases, N.C. Roy, M.J. Frutos, R.C. Anderson
J. Agric. Food Chem. 65, 5632 (2017).

Catalytically enhanced organic transistors for in vitro toxicology monitoring through hydrogel entrapment of enzymes

X. Strakosas, M. Huerta, M.J. Donahue, A. Hama, A.-M. Pappa, M. Ferro, M. Ramuz, J. Rivnay, R.M. Owens
J. Appl. Polym. Sci. 134, 44483 (2017).

Exfoliated graphene nanosheets: pH-sensitive drug carrier and anti-cancer activity

N. Tyagi, N.F. Attia, K.E. Geckeler
J. Colloid Interface Sci. 8, 894 (2017).

Early-lactation, but not mid-lactation, bovine lactoferrin preparation increases epithelial barrier integrity of Caco-2 cell layers

R. C. Anderson, S.A. Bassett, N.W. Haggarty, P.K. Gopal, K.M. Armstrong, N.C. Roy
J. Dairy Sci. 100, 886 (2017).

Real-time monitoring of trans-epithelial electrical resistance in cultured intestinal epithelial cells: the barrier protection of water-soluble dietary fiber

A. Majima, O. Handa, Y. Naito, Y. Suyama, Y. Onozawa, Y. Higashimura, K. Mizushima, M. Morita, Y. Uehara, H. Horie, T. Iida, A. Fukui, O. Dohi, T. Okayama, N. Yoshida, K. Kamada, K. Katada, K. Uchiyama, T. Ishikawa, T. Takagi, H. Konishi, Z. Yasukawa, M. Tokunaga, T. Okubo, Y. Itoh
J. Dig. Dis. 18, 151 (2017).

Epithelial Barriers in Murine Skin during Herpes Simplex Virus 1 Infection: The Role of Tight Junction Formation

E. Rahn, K. Thier, P. Petermann, M. Rüksam, P. Staeheli, S. Iden, C.M. Niessen, D. Knebel-Mörsdorf
J. Invest. Dermatol. 137, 884 (2017).

Effect of Hops Derived Prenylated Phenols on TNF- α Induced Barrier Dysfunction in Intestinal Epithelial Cells

S. Luescher, C. Urmann, V. Butterweck
J. Nat. Prod. 80, 925 (2017).

Anticoagulation with warfarin and rivaroxaban ameliorates experimental autoimmune encephalomyelitis

L. Stolz, A. Derouiche, K. Devraj, F. Weber, R. Brunkhorst, Ch. Foerch
J. Neuroinflammation 14, 152 (2017).

Assessment of Ocriplasmin Effects on the Vitreoretinal Compartment in Porcine and Human Model Systems

B. Jonckx, M. Porcu, A. Candi, I. Etienne, P. Barbeaux, J.H.M. Feyen
J. Ophthalmol. 2017, 2060765 (2017).

Saccharomyces boulardii CNCM I-745 Restores intestinal Barrier Integrity by Regulation of E-cadherin Recycling

Ch. Terciolo, A. Dobric, M. Ouaisi, C. Siret, G. Breuzard, F. Silvy, B. Marchiori, S. Germain, R. Bonier, A. Hama, R. Owens, D. Lombardo, V. Rigot, F. André
JCC 11, 999 (2017).

Insights from mathematical modelling for T cell migration into the central nervous system

T. Ruck, S. Bittner, S.G. Meuth, M. Herty
Math. Med. Biol. 34, 39 (2017).

The effects of gold nanoparticles functionalized with β -amyloid specific peptides on an in vitro model of blood-brain barrier

J. Ruff, S. Hüwel, M.J. Kogan, U. Simon, H.J. Galla
Nanomedicine 13, 1645 (2017).

E-cadherin integrates mechanotransduction and EGFR signaling to control junctional tissue polarization and tight junction positioning

M. Rüksam, A.F. Mertz, A. Kubo, S. Marg, Ch. Jüngst, G. Goranci-Buzhala, A.C. Schauss, V. Horsley, E.R. Dufresne, M. Moser, W. Ziegler, M. Amagai, S.A. Wickström, C.M. Niessen
Nat. Commun. 8, 1250 (2017).

Inhibition of soluble epoxide hydrolase prevents diabetic retinopathy

J. Hu, S. Dziubla, J. Lin, S.-I. Bibli, S. Zukunft, J. de Mos, K. Awwad, T. Frömel, A. Jungmann, K. Devraj, Z. Cheng, L. Wang, S. Fauser, Ch.G. Eberhart, A. Sodhi, B.D. Hammock, S. Liebner, O.J. Müller, C. Glaubitz, H.-P. Hammes, R. Popp, I. Fleming
Nature 552, 248 (2017).

Live *Faecalibacterium prausnitzii* Does Not Enhance Epithelial Barrier Integrity in an Apical Anaerobic Co-Culture Model of the Large Intestine

E. Maier, R.C. Anderson, N.C. Roy
Nutrients 9, 1349 (2017).

Establishment of a method for evaluating endothelial cell injury by *tnF-a* in vitro for clarifying the pathophysiology of virus-associated acute encephalopathy

K. Miyazaki, K. Hashimoto, M. Sato, M. Watanabe, N. Tomikawa, S. Kanno, Y. Kawasaki, N. Momoi, M. Hosoya
Pediatr. Res. 81, 942 (2017).

Development of Blood-Brain Barrier Permeable Nanoparticles as Potential Carriers for Salvianolic Acid B to CNS

Cristina Grossi, C. Guccione, B. Isacchi, M.C. Bergonzi, I. Luccarini, F. Casamenti, A.R. Bilia
Planta Med. 83, 382 (2017).

Opposing effects of in vitro differentiated macrophages sub-type on epithelial wound healing

J.A. Gindele, S. Mang, N. Pairet, I. Christ, F. Gantner, J. Schymeinsky, D.J. Lamb
PLoS One 12, e0184386 (2017).

Cross-over endocytosis of claudins is mediated by interactions via their extracellular loops

N. Gehne, A. Lamik, M. Lehmann, R.F. Haseloff, A.V. Andjelkovic, I.E. Blasig
PLoS One 12, e0182106 (2017).

Dual role of ALCAM in neuroinflammation and blood–brain barrier homeostasis

M.-A. Lécuyer, O. Saint-Laurent, L. Bourbonnière, S. Larouche, C. Larochelle, L. Michel, M. Charabati, M. Abadier, S. Zandee, N.H. Jahromi, E. Gowing, C. Pittet, R. Lyck, B. Engelhardt, A. Prat
PNAS 114, E524 (2017).

Establishment of a Human Blood-Brain Barrier Co-culture Model Mimicking the Neurovascular Unit Using Induced Pluri- and Multipotent Stem Cells

A. Appelt-Menzel, A. Cubukova, K. Günther, F. Edenhofer, J. Piontek, G. Krause, T. Stüber, H. Walles, W. Neuhaus, M. Metzger
Stem Cell Rep. 498, 364 (2017).

2016 年

Angiotensin-2-induced blood–brain barrier compromise and increased stroke size are rescued by VE-PTP-dependent restoration of Tie2 signaling

S. Gurnik, K. Devraj, J. Macas, M. Yamaji, J. Starke, A. Scholz, K. Sommer, M. Di Tacchio, R. Vutukuri, H. Beck, M. Mittelbronn, C. Foerch, W. Pfeilschifter, S. Liebner, K.G. Peters, K.H. Plate, Y. Reiss
Acta Neuropathol. 131, 753 (2016).

Perilla frutescens targets intestinal permeability In vitro study on TNF- a stress-induced barrier dysfunction in intestinal epithelial cells

S. Buchwald-Werner, S. Lüscher, S. Kudo, V. Butterweck
Agro Food Ind. Hi-Tech 27, 13 (2016).

Plasmalemma Vesicle-Associated Protein Has a Key Role in Blood-Retinal Barrier Loss

J. Wisniewska-Kruk, A.-E. van der Wijk, H.A. van Veen, T.G.M.F. Gorgels, I.M.C. Vogels, D. Versteeg, C.J.F. Van Noorden, R.O. Schlingemann, I. Klaassen
Am. J. Pathol. 186, 1044 (2016).

Differences in the molecular structure of the blood-brain barrier in the cerebral cortex and white matter: an in silico, in vitro and ex vivo study

Á. Nyúl-Tóth, M. Suciú, J. Molnár, C. Fazakas, J. Haskó, H. Herman, A.E. Farkas, J. Kaszaki, A. Hermenean, I. Wilhelm, I.A. Krizbai
Am. J. Physiol. 310, H1702 (2016).

Validation of an immortalized human (hBMEC) in vitro blood-brain barrier model

D.E. Eigenmann, E.A. Jähne, M. Smieško, M. Hamburger, M. Oufir
Anal. Bioanal. Chem. 408, 2095 (2016).

Early Detection of Nephrotoxicity In Vitro Using a Transparent Conducting Polymer Device

M. Huerta, J. Rivnay, M. Ramuz, A. Hama, R.M. Owens

Appl. In Vitro Toxicol. 2, 17 (2016).

ZOT-derived peptide and chitosan functionalized nanocarrier for oral delivery of protein drug

J.H. Lee, A. Sahu, W.I. Choi, J.Y. Lee, G. Tae

Biomaterials 103, 160 (2016).

Effects on and transfer across the blood-brain barrier in vitro — Comparison of organic and inorganic mercury species

H. Lohren, J. Bornhorst, R. Fitkau, G. Pohl, H.-J. Galla, T. Schwerdtle

BMC Pharmacol. Toxicol. 17, 63 (2016).

Secretion of Alpha-Hemolysin by Escherichia coli Disrupts Tight Junctions in Ulcerative Colitis Patients

H.C. Mirsepasi-Lauridsen, Z. Du, C. Struve, G. Charbon, J. Karczewski, K.A. Krogfelt, A.M. Petersen, J.M. Wells

Clin. Transl. Gastroenterol. 7, e149 (2016).

Targeting key angiogenic pathways with a bispecific CrossMAb optimized for neovascular eye diseases

J.T. Regula, P. Lundh von Leithner, R. Foxton, V.A. Barathi, C.M.G. Cheung, S.B.B. Tun, Y.S. Wey, D. Iwata, M. Dostalek, J. Moelleken,

K.G. Stubenrauch, E. Nogoceke, G. Widmer, P. Strassburger, M.J. Koss, Ch. Klein, D.T. Shima, G. Hartmann

EMBO Mol. Med. 8, 1265 (2016).

In vitro blood-brain barrier permeability predictions for GABAA receptor modulating piperine analogs

D.E. Eigenmann, C. Dürig, E.A. Jähne, M. Smieško, M. Culot, F. Gosselet, R. Cecchelli, H.Ch.C. Helms, B. Brodin, L. Wimmer, M.D.

Mihovilovic, M. Hamburger, M. Oufir

Eur. J. Pharm. Biopharm. 103, 118 (2016).

Targeting of the kynurenic acid across the blood-brain barrier by core-shell nanoparticles

N. Varga, E. Csapó, Z. Majláth, I. Ilisz, I.A. Krizbai, I. Wilhelm, L. Knapp, J. Toldi, L. Vécsei, I. Dékány

Eur. J. Pharm. Sci. 86, 67 (2016).

Transient receptor potential A1 channels regulate epithelial cell barriers formed by MDCK cells

S. Dembla, N. Hasan, A. Becker, A. Beck, S.E. Philipp

FEBS Lett. 590, 1509 (2016).

Modeling immune functions of the mouse blood-cerebrospinal fluid barrier in vitro: primary rather than immortalized mouse choroid plexus epithelial cells are suited to study immune cell migration across this brain barrier

I. Lazarevic, B. Engelhardt

Fluids Barriers CNS 13, 2 (2016).

MicroRNA-320a Strengthens Intestinal Barrier Function and Follows the Course of Experimental Colitis

F. Cordes, M. Brückner, P. Lenz, K. Veltman, R. Glaubien, B. Siegmund, K. Hengst, M.A. Schmidt, Ch. Cichon, D. Bettenworth

Inflammatory Bowel Dis. 22, 2341 (2016).

The Mitochondrial-Derived Peptide Humanin Protects RPE Cells From Oxidative Stress, Senescence, and Mitochondrial Dysfunction

P.G. Sreekumar, K. Ishikawa, C.S., H.H. Mehta, J. Wan, K. Yen, P. Cohen, R. Kannan, D.R. Hinton

Invest. Ophthalmol. Visual Sci. 57, 1238 (2016).

Nucleoside diphosphate kinase B regulates angiogenic responses in the endothelium via caveolae formation and c-Src-mediated caveolin-1 phosphorylation

S. Gross, K. Devraj, Y. Feng, J. Macas, S. Liebner, T. Wieland

J. Cereb. Blood Flow Metab. 37, 2471 (2016).

Endothelial LRP1 transports amyloid- β 1-42 across the blood-brain barrier

S.E. Storck, S. Meister, J. Nahrath, J.N. Meißner, N. Schubert, A. Di Spiezio, S. Baches, R.E. Vandenbroucke, Y. Bouter, I. Prikulis, C.

Korth, S. Weggen, A. Heimann, M. Schwaninger, T.A. Bayer, C.U. Pietrzik

J. Clin. Invest. 126, 123 (2016).

Flurbiprofen-loaded Nanoparticles Can Cross a Primary Porcine In vitro Blood-brain Barrier Model to Reduce Amyloid- β 42 Burden

J. Stab, I. Zlatev, B. Raudszus, S. Meister, C.U. Pietrzik, K. Langer, H. von Briesen, S. Wagner

J. Nanomed. Biother. Discovery 6, 1000140 (2016).

β -Catenin Is Required for Endothelial Cyp1b1 Regulation Influencing Metabolic Barrier Function

N. Ziegler, K. Awwad, B. Fisslthaler, M. Reis, K. Devraj, M. Corada, S.P. Minardi, E. Dejana, K.H. Plate, I. Fleming, S. Liebner
J. Neurosci. 36, 8921 (2016).

Validation of UHPLC–MS/MS methods for the determination of kaempferol and its metabolite 4-hydroxyphenyl acetic acid, and application to in vitro blood-brain barrier and intestinal drug permeability studies

F. Moradi-Afrapoli, M. Oufir, F.R. Walter, M.A. Deli, M. Smiesko, V. Zabela, V. Butterweck, M. Hamburger
J. Pharm. Biomed. Anal. 128, 264 (2016).

The Effect of Capsaicin Derivatives on Tight-Junction Integrity and Permeability of Madin-Darby Canine Kidney Cells

M. Kaiser, S. Chalapala, C. Gorzelanny, R.S. Perali, F.M. Goycoolea
J. Pharm. Sci. 105, 630 (2016).

Toxicological characterisation of a thio-arsenosugar-glycerol in human cells

F. Ebert, S. Meyer, L. Leffers, G. Raber, K.A. Francesconi, T. Schwerdtle
J. Trace Elem. Med. Biol. 38, 150 (2016).

An In Vitro Model of the Blood-brain Barrier Using Impedance Spectroscopy: A Focus on T Cell-endothelial Cell Interaction

I. Kuzmanov, A.M. Herrmann, H.-J. Galla, S.G. Meuth, H. Wiendl, L. Klotz
J. Vis. Exp. 118, e54592 (2016).

Blood coagulation factor XII drives adaptive immunity during neuroinflammation via CD87-mediated modulation of dendritic cells

K. Göbel, S. Pankratz, Ch.-M. Asaridou, A.M. Herrmann, S. Bittner, M. Merker, T. Ruck, S. Glumm, F. Langhauser, P. Kraft, T.F. Krug, J. Breuer, M. Herold, C.C. Gross, D. Beckmann, A. Korb-Pap, M.K. Schuhmann, S. Kuerten, I. Mitroulis, C. Ruppert, M.W. Nolte, C. Panousis, L. Klotz, B. Kehrel, T. Korn, H.F. Langer, T. Pap, B. Nieswandt, H. Wiendl, T. Chavakis, Ch. Kleinschnitz, S.G. Meuth
Nat. Commun. 7, 11626 (2016).

Influence of Bovine Whey Protein Concentrate and Hydrolysate Preparation Methods on Motility in the Isolated Rat Distal Colon

J.E. Dalziel, R.C. Anderson, S.A. Bassett, C.M. Lloyd-West, N.W. Haggarty, N.C. Roy
Nutrients 8, 809 (2016).

Pharmacokinetics and In Vitro Blood-Brain Barrier Screening of the Plant-Derived Alkaloid Tryptanthrin

E.A. Jähne, D.E. Eigenmann, Ch. Sampath, V. Butterweck, M. Culot, R. Cecchelli, F. Gosselet, F.R. Walter, M.A. Deli, M. Smieško, M. Hamburger, M. Oufir
Planta Med. 82, 1021 (2016).

B7-H1 shapes T-cell-mediated brain endothelial cell dysfunction and regional encephalitogenicity in spontaneous CNS autoimmunity

L. Klotz, I. Kuzmanov, S. Hucke, C.C. Gross, V. Posevitz, A. Dreykluft, A. Schulte-Mecklenbeck, C. Janoschka, M. Lindner, M. Herold, N. Schwab, I. Ludwig-Portugall, Ch. Kurts, S.G. Meuth, T. Kuhlmann, H. Wiendl
PNAS 113, E6182 (2016).

Thermo-responsive cell culture carriers based on poly(vinyl methyl ether)—the effect of biomolecular ligands to balance cell adhesion and stimulated detachment

J. Teichmann, M. Nitschke, D. Pette, M. Valtink, S. Gramm, F.V. Härtel, T. Noll, R.H.W. Funk, K. Engelmann, C. Werner
Sci. Technol. Adv. Mater. 16, 45003 (2016).

Human Alpha-Defensin HNP1 Increases HIV Traversal of the Epithelial Barrier: A Potential Role in STI-Mediated Enhancement of HIV Transmission

K. Valere, A. Rapista, E. Eugenin, W. Lu, T.L. Chang
Viral Immunol. 28, 609 (2016).

2015 年

Transport of treosulfan and temozolomide across an in-vitro blood-brain barrier model

U. Linz, M. Hupert, B. Santiago-Schübel, S. Wien, J. Stab, S. Wagner
Anticancer Drugs 26, 728 (2015).

Organic electrochemical transistors for cell-based impedance sensing

J. Rivnay, M. Ramuz, P. Leleux, A. Hama, M. Huerta, R.M. Owens
Appl. Phys. Lett. 106, 43301 (2015).

Mode of action of claudin peptidomimetics in the transient opening of cellular tight junction barriers

C. Staat, C. Coisne, S. Dabrowski, S.M. Stamatovic, A.V. Andjelkovic, H. Wolburg, B. Engelhardt, I.E. Blasig
Biomaterials 54, 9 (2015).

Live *Faecalibacterium prausnitzii* in an apical anaerobic model of the intestinal epithelial barrier

D. Ulluwishewa, R.C. Anderson, W. Young, W.C. McNabb, P. van Baarlen, P.J. Moughan, J.M. Wells, N.C. Roy
Cell Microbiol. 17, 226 (2015).

Cell surface levels of endothelial ICAM-1 influence the transcellular or paracellular T-cell diapedesis across the blood-brain barrier

M. Abadier, J. Haghayegh Jahromi, L. Cardoso Alves, R. Boscacci, D. Vestweber, S. Barnum, U. Deutsch, B. Engelhardt, R. Lyck
Eur. J. Immunol. 45, 1043 (2015).

Expression of the ALS-causing variant hSOD1G93A leads to an impaired integrity and altered regulation of claudin-5 expression in an in vitro blood–spinal cord barrier model

S. Meister, S. Storck, E. Hameister, C. Behl, S. Weggen, A. Clement, C. Pietrzik
J. Cereb. Blood Flow Metab. 35, 1112 (2015).

Nanotoxicity of poly(n-butylcyano-acrylate) nanoparticles at the blood–brain barrier, in human whole blood and in vivo

M. Kolter, M. Ott, C. Hauer, I. Reimold, G. Fricker
J. Control Release 197, 165 (2015).

Irsogladine Maleate Regulates Gap Junctional Intercellular Communication-Dependent Epithelial Barrier in Human Nasal Epithelial Cells

R. Miyata, K. Nomura, T. Kakuki, K. Takano, T. Kohno, T. Konno, N. Sawada, T. Himi, T. Kojima
J. Membr. Biol. 248, 327 (2015).

In Vitro Blood–Brain Barrier Models—An Overview of Established Models and New Microfluidic Approaches

A. Wolff, M. Antfolk, B. Brodin, M. Tenje
J. Pharm. Sci. 104, 2727 (2015).

Non-*Saccharomyces* yeasts protect against epithelial cell barrier disruption induced by *Salmonella enterica* subsp. *enterica* serovar Typhimurium

I.M. Smith, A. Baker, N. Arneborg, L. Jespersen
Lett. Appl. Microbiol. 61, 491 (2015).

The blood–cerebrospinal fluid barrier – first evidence for an active transport of organic mercury compounds out of the brain

H. Lohren, J. Bornhorst, H.J. Galla, T. Schwerdtle
Metallomics 7, 1420 (2015).

Arsenic-containing hydrocarbons and arsenic-containing fatty acids: Transfer across and presystemic metabolism in the Caco-2 intestinal barrier model

S. Meyer, G. Raber, F. Ebert, M.S. Taleshi, K.A. Francesconi, T. Schwerdtle
Mol. Nutr. Food Res. 59, 2044 (2015).

Characterization of efflux transport proteins of the human choroid plexus papilloma cell line HIBCPP, a functional in vitro model of the blood–cerebrospinal fluid barrier

A. Bernd, M. Ott, H. Ishikawa, H. Schroten, C. Schwerk, G. Fricker
Pharm. Res. 32, 2973 (2015).

Claudin-4 binder C-CPE 194 enhances effects of anticanceragents on pancreatic cancer cell lines via a MAPK pathway

K. Tsuyoshi, K. Masuo, K. Daisuke, I. Tatsuya, K. Yasutoshi, I. Masafumi, K. Takayuki, K. Takumi, F. Tomohisa, S. Norimasa, H. Koichi, K. Takashi
Pharmacol. Res. Perspect. 3, e00196 (2015).

Intestinal formation of trans-crocetin from saffron extract (*Crocus sativus* L.) and in vitro permeation through intestinal and blood brain barrier

M. Lautenschläger, J. Sendker, S. Hüwel, H.J. Galla, S. Brandt, M. Düfer, K. Riehemann, A. Hensel
Phytomed. 22, 36 (2015).

ANKS1B Interacts with the Cerebral Cavemorphosis Protein-1 and Controls Endothelial Permeability but Not Sprouting Angiogenesis

S.E. Herberich, R. Klose, I. Moll, W.-J. Yang, J. Wüstehube-Lausch, A. Fischer
PLoS One 10, e0145304 (2015).

Blood-Brain Barrier Effects of the Fusarium Mycotoxins Deoxynivalenol, 3 Acetyldeoxynivalenol, and Moniliformin and Their Transfer to the Brain

M. Behrens, S. Hüwel, H.-J. Galla, H.-U. Humpf
PLoS One 10, e0143640 (2015).

Endothelial-Mesenchymal Transition of Brain Endothelial Cells: Possible Role during Metastatic Extravasation

I.A. Krizbai, Á. Gasparics, P. Nagyoszi, C. Fazakas, J. Molnár, I. Wilhelm, R. Bencs, L. Rosivall, A. Sebe
PLoS One 10, e0123845 (2015).

Dynamic Regulation of a Cell Adhesion Protein Complex Including CADM1 by Combinatorial Analysis of FRAP with Exponential Curve-Fitting

M. Sakurai-Yageta, T. Maruyama, T. Suzuki, K. Ichikawa, Y. Murakami
PLoS One 10, e0116637 (2015).

Using white noise to gate organic transistors for dynamic monitoring of cultured cell layers

J. Rivnay, P. Leleux, A. Hama, M. Ramuz, M. Huerta, G.G. Malliaras, R.M. Owens
Sci. Rep. 5, 11613 (2015).

Chitosan encapsulation modulates the effect of capsaicin on the tight junctions of MDCK cells

M. Kaiser, S. Pereira, L. Pohl, S. Ketelhut, B. Kemper, C. Gorzelanny, H.J. Galla, B. M. Moerschbacher, F.M. Goycoolea
Sci. Rep. 5, 10048 (2015).

Thermo-responsive cell culture carriers based on poly(vinyl methyl ether)—the effect of biomolecular ligands to balance cell adhesion and stimulated detachment

J. Teichmann, M. Nitschke, D. Pette, M. Valtink, S. Gramm, F.V. Härtel, T. Noll, R.H.W. Funk, K. Engelmann, C. Werner
Sci. Technol. Adv. Mater. 16, 45003 (2015).

Human Alpha-Defensin HNP1 Increases HIV Traversal of the Epithelial Barrier: A Potential Role in STI-Mediated Enhancement of HIV Transmission

K. Valere, A. Rapista, E. Eugenin, W. Lu, T.L. Chang
Viral Immunol. 28, 609 (2015).

2014 年

Dynamic Monitoring of Salmonella typhimurium Infection of Polarized Epithelia Using Organic Transistors

S.A. Tria, M. Ramuz, M. Huerta, P. Leleux, J. Rivnay, L.H. Jimison, A. Hama, G.G. Mall
Adv. Healthcare Mater. 3, 1053 (2014).

Highly Conserved Cysteines Are Involved in the Oligomerization of Occludin-Redox Dependency of the Second Extracellular Loop

Ch. Bellmann, S. Schreivogel, R. Günther, S. Dabrowski, M. Schümann, H. Wolburg, I.E. Blasig
Antioxid. Redox Signaling 20, 855 (2014).

Dietary Xylo-oligosaccharide stimulates intestinal bifidobacteria and lactobacilli but has limited effect on intestinal integrity in rats

E.G. Christensen, T.R. Licht, T.D. Leser, M.I. Bahl
BMC Res. Notes 7, 660 (2014).

The antimicrobial protein S100A7/psoriasin enhances the expression of keratinocyte differentiation markers and strengthens the skin's tight junction barrier

F. Hattori, C. Kiatsurayanon, K. Okumura, H. Ogawa, S. Ikeda, K. Okamoto, F. Niyonsaba
Br. J. Dermatol. 171, 742 (2014).

In Vitro Models of the Blood-Brain Barrier

C.J. Czupalla, S. Liebner, K. Devraj
Cerebral Angiogenesis Method Molec. Biol. 1135, 415 (2014).

Differential apicobasal VEGF signaling at vascular blood-neural barriers

N. Hudson, M.B. Powner, M.H. Sarker, T. Burgoyne, M. Campbell, Z.K. Ockrim, R. Martinelli, C.E. Futter, M.B. Grant, P.A. Fraser, D.T. Shima, J. Greenwood, P. Turowski
Dev. Cell. 30, 541 (2014).

Freeze-drying of HI-6-loaded recombinant human serum albumin nanoparticles for improved storage stability

M. Dadparvar, S. Wagner, S. Wien, F. Worek, H. von Briesen, J. Kreuter
Euro. J. Pharm. Biopharm. 88, 510 (2014).

The absorptive flux of the anti-epileptic drug substance vigabatrin is carrier-mediated across Caco-2 cell monolayers

M.K. Nøhra, S.H. Hansena, B. Brodin, R. Holm, C.U. Nielsen
Euro. J. Pharm. Sci. 51, 1 (2014).

Increased Efflux of Amyloid- β Peptides through the Blood-Brain Barrier by Muscarinic Acetylcholine Receptor Inhibition Reduces Pathological Phenotypes in Mouse Models of Brain Amyloidosis

P. Paganetti, K. Antonello, K. Devraj, N. Toni, D. Kieran, R. Madani, M. Pihlgren, O. Adolfsson, W. Froestl, A. Schrattenholz, S. Liebner, D. Havas, M. Windisch, J.R. Cirrito, A. Pfeifer, A. Muhs
J. Alzheimer's Disease 38, 767 (2014).

Comprehensive Cysteine-Scanning Mutagenesis Reveals Claudin-2 Pore-Lining Residues with Different Intrapore Locations

J. Li, M. Zhuo, L. Pei, M. Rajagopa, A.S.L. Yu
J. Biol. Chem. 289, 6475 (2014).

Lipocalin-2 deficiency attenuates neuroinflammation and brain injury after transient middle cerebral artery occlusion in mice

M. Jin, J.-H. Kim, E. Jang, Y.M. Lee, H.S. Han, D.K. Woo, D.H. Park, H. Kook, K. Suk
J. Cereb. Blood Flow Metab. 34, 1306 (2014).

The Human Cathelicidin LL-37 Host Defense Peptide Upregulates Tight Junction-Related Proteins and Increases Human Epidermal Keratinocyte Barrier Function

T. Akiyama, F. Niyonsaba, Ch. Kiatsurayanon, T.T. Nguyen, H. Ushio, T. Fujimura, T. Ueno, K. Okumura, H. Ogawa, S. Ikeda
J. Innate Immun. 6, 739 (2014).

The M1 Protein of Streptococcus pyogenes Triggers an Innate Uptake Mechanism into Polarized Human Endothelial Cells

A. Ochel, M. Rohde, G.S. Chhatwal, S.R. Talay
J. Innate Immun. 6, 585 (2014).

Host Defense (Antimicrobial) Peptide, Human β -Defensin-3, Improves the Function of the Epithelial Tight-Junction Barrier in Human Keratinocytes

C. Kiatsurayanon, F. Niyonsaba, R. Smithrithee, T. Akiyama, H. Ushio, M. Hara, K. Okumura, S. Ikeda, H. Ogawa
J. Invest. Dermatol. 134, 2163 (2014).

Synthesis and Pharmacological Evaluation of 5-Pyrrolidinylquinoxalines as a Novel Class of Peripherally Restricted μ -Opioid Receptor Agonists

C. Bourgeois, E. Werfel, F. Galla, K. Lehmkuhl, H. Torres-Gómez, D. Schepmann, B. Kögel, T. Christoph, W. Straßburger, W. Englberger, M. Soeberdt, S. Hüwel, H.-J. Galla, B. Wünsch
J. Med. Chem. 57, 6845 (2014).

PACAP Enhances Barrier Properties of Cerebral Microvessels

I. Wilhelm, C. Fazakas, A. Tamás, G. Tóth, D. Regl, I.A. Krizbai
J. Mol. Neurosci. 54, 469 (2014).

The Influence of Silver Nanoparticles on the Blood-Brain and the Blood-Cerebrospinal Fluid Barrier in vitro

S. Cramer, S. Tacke, J. Bornhorst, J. Klingauf, T. Schwerdtle, H.-J. Galla
J. Nanomed. Nanotechnol. 5, 225 (2014).

Evaluation of Lignans from *Heliopsis helianthoides* var. *scabra* for Their Potential Antimetastatic Effects in the Brain

Z. Hajdu, J. Haskó, I.A. Krizbai, I. Wilhelm, N. Jedlinszki, C. Fazakas, J. Molnár, P. Forgo, J. Hohmann, D. Csupor
J. Nat. Prod. 77, 2641 (2014).

Development and validation of a LC-MS/MS method for assessment of an anti-inflammatory indolinone derivative by in vitro blood-brain barrier models

E.A. Jähne, D.E. Eigenmann, M. Culot, R. Cecchelli, F.R. Walter, M.A. Deli, R. Tremmel, G. Fricker, M. Smiesko, M. Hamburger, M. Oufir
J. Pharm. Biomed. Anal. 98, 235 (2014).

What Is the Mechanism Behind Increased Permeation Rate of a Poorly Soluble Drug from Aqueous Dispersions of an Amorphous Solid Dispersion?

K.J. Frank, U. Westedt, K.M. Rosenblatt, P. Hölig, J. Rosenberg, M. Mägerlein, G. Fricker, M. Brandl
J. Pharm. Sci. 103, 1779 (2014).

Sensing of Barrier Tissue Disruption with an Organic Electrochemical Transistor

S.A. Tria, M. Ramuz, L.H. Jimison, A. Hama, R.M. Owens
J. Visualized Exp. 84, e51102 (2014).

Intracellular amyloid beta alters the tight junction of retinal pigment epithelium in 5XFAD mice

S.W. Park, J.H. Kim, I. Mook-Jung, K.-W. Kim, W.J. Park, K.H. Park, J.H. Kim
Neurobiol. Aging 35, 2013 (2014).

Extracellular Vesicle-Mediated Transfer of Genetic Information between the Hematopoietic System and the Brain in Response to Inflammation

K. Ridder, S. Keller, M. Dams, A.-K. Rupp, J. Schlaudraff, D. Del Turco, J. Starmann, J. Macas, D. Karpova, K. Devraj, C. Depboylu, B. Landfried, B. Arnold, K.H. Plate, G. Höglinger, H. Sülthmann, P. Altevogt, S. Momma
PLoS Biol. 12, e1001874 (2014).

Pseudomonas aeruginosa elastase causes transient disruption of tight junctions and downregulation of PAR-2 in human nasal epithelial cells.

K. Nomura, K. Obata, T. Keira, R. Miyata, S. Hirakawa, K. Takano, T. Kohno, N. Sawada, T. Himi, T. Kojima
Respir. Res. 15, 21 (2014).

2013 年

Nanoparticulate flurbiprofen reduces amyloid- β 42 generation in an in vitro blood-brain barrier model

S. Meister, I. Zlatev, J. Stab, D. Docter, S. Baches, R.H. Stauber, M. Deutsch, R. Schmidt, S. Ropele, M. Windisch, K. Langer, S. Wagner, H. von Briesen, S. Weggen, C.U. Pietrzik
Alzheimer's Res. Ther. 5, 51 (2013).

Validation of the organic electrochemical transistor for in vitro toxicology

S. Tria, L.H. Jimison, A. Hama, M. Bongo, R.M. Owens
Biochim. Biophys. Acta 1830, 4381 (2013).

Sensing of EGTA Mediated Barrier Tissue Disruption with an Organic Transistor

S. Tria, L.H. Jimison, A. Hama, M. Bongo, R.M. Owens
Biosens. 3, 44 (2013).

Vectorial secretion of interleukin-8 mediates autocrine signalling in intestinal epithelial cells via apically located CXCR1

O. Rossi, J. Karczewski, E.H. Stolte, R.J.M. Brummer, M.A. van Nieuwenhoven, M. Meijerink, J.R.J. van Neerven, S.C.D. van Ijzendoorn, P. van Baarlen, J.M. Wells
BMC Res. Notes 6, 431 (2013).

Sertraline inhibits the transport of PAT1 substrates in vivo and in vitro

C.U. Nielsen, S. Frølund, S. Abdulhadi, H. Sari, L. Langthaler, M.K. Nøhr, M.A. Kall, B. Brodin, R. Holm
Br. J. Pharmacol. 170, 1041 (2013).

Constitutive androstane receptor upregulates Abcb1 and Abcg2 at the blood-brain barrier after CITCO activation

J. Lemmen, I.E.P. Tozakidis, P. Bele, H.J. Galla
Brain Res. 1501, 68 (2013).

Pregnane X receptor upregulates ABC-transporter Abcg2 and Abcb1 at the blood-brain barrier

J. Lemmen, I.E.P. Tozakidis, H.J. Galla
Brain Res. 1491, 1 (2013).

Acetaminophen Changes Intestinal Epithelial Cell Membrane Properties, Subsequently Affecting Absorption Processes

C. Schäfer, K.R. Schröder, O. Höglinger, S. Tollabimazraehno, M.R. Lornejad-Schäfer
Cell Physiol. Biochem. 32, 431 (2013).

Regulation of tight junctions by sex hormones in normal human endometrial epithelial cells and uterus cancer cell line Sawano

M. Someya, T. Kojima, M. Ogawa, T. Ninomiya, K. Nomura, A. Takasawa, M. Murata, S. Tanaka, T. Saito, N. Sawada
Cell Tissue Res. 354, 481 (2013).

Physicochemical characterization and in vitro permeation of an indirubin derivative

N. Heshmati, B. Wagner, X. Cheng, T. Scholz, M. Kansy, G. Eisenbrand, G. Fricker
Eur. J. Pharm. Sci. 50, 467 (2013).

Physicochemical characterization and in vitro permeation of an indirubin derivative

N. Heshmati, B. Wagner, X. Cheng, T. Scholz, M. Kansy, G. Eisenbrand, G. Fricker
Eur. J. Pharm. Sci. 50, 467 (2013).

Comparative study of four immortalized human brain capillary endothelial cell lines, hCMEC/D3, hBMEC, TY10, and BB19, and optimization of culture conditions, for an in vitro blood-brain barrier model for drug permeability studies

D.E. Eigenmann, G. Xue, K.S. Kim KS, A.V. Moses, M. Hamburger, M. Oufir
Fluids Barriers CNS 10, 33 (2013).

Impedance-based cell monitoring: barrier properties and beyond

K. Benson, S. Cramer, H.J. Galla
Fluids Barriers CNS 10, 5 (2013).

Expression of Shiga toxin 2e glycosphingolipid receptors of primary porcine brain endothelial cells and toxin-mediated breakdown of the blood-brain barrier

I. Meisen, R. Rosenbrück, H.J. Galla, S. Hüwel, I.U. Kouzel, M. Mormann, H. Karch, J. Müthing
Glycobiol. 23, 745 (2013).

Transepithelial permeability studies of flavan-3-ol-C-glucosides and procyanidin dimers and trimers across the Caco-2 cell monolayer

S. Hemmersbach, S.S. Brauer, S. Hüwel, H.J. Galla, H.U. Humpf
J. Agric. Food Chem. 61, 7932 (2013).

The biocompatibility of a polyelectrolyte vitreous body substitute on a high resistance in vitro model of the blood-retinal barrier

F. Strotmann, I. Wolf, H.-J. Galla
J. Biomater. Appl. 28, 334 (2013).

The cytokine response of U937-derived macrophages infected through antibody dependent enhancement of dengue virus disrupts cell apical junctional complexes and increase vascular permeability

H. Puerta-Guardo, A. Raya-Sandino, L. González-Mariscal, V.H. Rosales, J. Ayala-Dávila, B. Chávez-Mungía, D. Martínez-Fong, F. Medina, J.E. Ludert, R. María del Angel
J. Virol. 87, 7486 (2013).

In vitro intestinal bioavailability of arsenosugar metabolites and presystemic metabolism of thio-dimethylarsinic acid in Caco-2 cells

L. Leffers, C.A. Wehe, S. Hüwel, M. Bartel, F. Ebert, M.S. Taleshi, H.-J. Galla, U. Karst, K.A. Francesconi, T. Schwerdtle
Metalomics 5, 1031 (2013).

In vitro toxicological characterization of two arsenosugars and their metabolites

L. Leffers, F. Ebert, M.S. Taleshi, K.A. Francesconi, T. Schwerdtle
Mol. Nutr. Food Res. 57, 1270 (2013).

Endothelial TWIK-related potassium channel-1 (TREK1) regulates immune-cell trafficking into the CNS

S. Bittner, T. Ruck, M.K. Schuhmann, A.M. Herrmann, H. Moha ou Maati, N. Bobak, K. Göbel, F. Langhauser, D. Stegner, P. Ehling, M. Borsotto, H.-C. Pape, B. Nieswandt, C. Kleinschnitz, C. Heurteaux, H.-J. Galla, T. Budde, H. Wiendl, S.G. Meuth
Nat. Med. 19, 1161 (2013).

Wnt Activation of Immortalized Brain Endothelial Cells as a Tool for Generating a Standardized Model of the Blood Brain Barrier In Vitro

R. Paolinelli, M. Corada, L. Ferrarini, K. Devraj, C. Artus, C.J. Czupalla, N. Rudini, L. Maddaluno, E. Papa, B. Engelhardt, P.O. Couraud, S. Liebner, E. Dejana
PLoS One 8, e70233 (2013).

Curcumin Prevents Replication of Respiratory Syncytial Virus and the Epithelial Responses to It in Human Nasal Epithelial Cells

K. Obata, T. Kojima, T. Masaki, T. Okabayashi, S. Yokota, S. Hirakawa, K. Nomura, A. Takasawa, M. Murata, S. Tanaka, J. Fuchimoto, N. Fujii, H. Tsutsumi, T. Himi, N. Sawada
PLoS ONE 8, e70225 (2013).

CD4+NKG2D+ T Cells Exhibit Enhanced Migratory and Encephalitogenic Properties in Neuroinflammation

T. Ruck, S. Bittner, C.C. Gross, J. Breuer, S. Albrecht, S. Korr, K. Göbel, S. Pankratz, C.M. Henschel, N. Schwab, O. Staszewski, M. Prinz, T. Kuhlmann, S.G. Meuth, H. Wiendl
PLoS ONE 8, e70225 (2013).

Influence of T-2 and HT-2 Toxin on the Blood-Brain Barrier In Vitro: New Experimental Hints for Neurotoxic Effects.

M. Weidner, S. Hüwel, F. Ebert, T. Schwerdtle, H.J. Galla, H.U. Humpf
PLoS ONE 8, e60484 (2013).

2012 年

Receptor-Mediated Delivery of Magnetic Nanoparticles across the Blood-Brain Barrier

R. Qiao, Q. Jia, S. Hüwel, R. Xia, T. Liu, F. Gao, H.J. Galla, M. Gao
ACS Nano 6, 3304 (2012).

Differential Targeting of the E-Cadherin/ β -Catenin Complex by Gram-positive Probiotic Lactobacilli Improves Epithelial Barrier Function

S. Hummel, K. Veltman, C. Cichon, U. Sonnenborn, M.A. Schmidt
Appl. Environ. Microbiol. 78, 1140 (2012).

Inhibitory effect of phospholipids on P-glycoprotein: Cellular studies in Caco-2, MDCKII mdr1 and MDCKII wildtype cells and P-gp ATPase activity measurements

S. Simon, R. Schubert
Biochim. Biophys. Acta 1821, 1211 (2012).

Streptococcus pneumoniae induces exocytosis of Weibel-Palade bodies in pulmonary endothelial cells

M. Lüttge, M. Fulde, S.R. Talay, A. Nerlich, M. Rohde, K.T. Preissner, S. Hammerschmidt, M. Steinert, T.J. Mitchell, G.S. Chhatwal, S. Bergmann
Cell. Microbiol. 14, 210 (2012).

Impact of FaSSiF on the solubility and dissolution-/permeation rate of a poorly water-soluble compound

K. J. Frank, U. Westedt, K. M. Rosenblatt, P. Hölig, J. Rosenberg, M. Mägerlein, M. Brandl, G. Fricker
Euro. J. Pharm. Sci. 47, 16 (2012).

Identification of specific miRNAs targeting proteins of the apical junctional complex that simulate the probiotic effect of E. coli Nissle 1917 on T84 epithelial cells

K. Veltman, S. Hummel, C. Cichon, U. Sonnenborn, M.A. Schmidt
Int. J. Biochem. Cell Biol. 44, 341 (2012).

Amorphous solid dispersion enhances permeation of poorly soluble ABT-102: True supersaturation vs. apparent solubility enhancement

K.J. Frank, K.M. Rosenblatt, U. Westedt, P. Hölig, J. Rosenberg, M. Mägerlein, G. Fricker, M. Brandl
Int. J. Pharm. 437, 288 (2012).

Impact of manganese on and transfer across the blood-brain and blood-CSF barrier in vitro

J. Bornhorst, C.A. Wehe, S. Hüwel, U. Karst, H.J. Galla, T. Schwerdtle
J. Biol. Chem. 287, 17140 (2012).

Mechanism of Clostridium perfringens Enterotoxin Interaction with Claudin-3/-4 Protein Suggests Structural Modifications of the Toxin to Target Specific Claudins

A. Veshnyakova, J. Piontek, J. Protze, N. Waziri, I. Heise, G. Krause
J. Biol. Chem. 287, 1698 (2012).

aPKC phosphorylates JAM-A at Ser285 to promote cell contact maturation and tight junction formation

S. Iden, S. Misselwitz, S.S.D. Peddibhotla, H. Tuncay, D. Rehder, V. Gerke, H. Robenek, A. Suzuki, K. Ebnet
J. Cell. Biol. 196, 623 (2012).

Preparation and properties of nanoscale containers for biomedical application in drug delivery: preliminary studies with kynurenic acid

V. Hornok, T. Bujdosó, J. Toldi, K. Nagy, I. Demeter, C. Fazakas, I. Krizbai, L. Vécsei, I. Dékány
J. Neural. Transm. 119, 115 (2012).

Cellular Interactions of a Water-Soluble Supramolecular Polymer Complex of Carbon Nanotubes with Human Epithelial Colorectal Adenocarcinoma Cells

Y. Lee, K. E. Geckeler
Macro. Biosci. 12, 1060 (2012).

Permeability of ergot alkaloids across the blood–brain barrier in vitro and influence on the barrier integrity

D. Mulac, S. Hüwel, H.J. Galla, H.U. Humpf

Mol. Nutr. Food Res. 56, 475 (2012).

2011 年

In vitro models of the blood–brain barrier

I. Wilhelm, C. Fazakas, I. A. Krizbai

Acta Neurobiol. Exp. 71, 113 (2011).

Transport of Poly(n-butylcyano-acrylate) nanoparticles across the blood–brain barrier in vitro and their influence on barrier integrity

R. Rempe, S. Cramer, H.J. Galla

Biochem. Biophys. Res. Commun. 406, 64 (2011).

Neutrophils cross the BBB primarily on transcellular pathways: An in vitro study

M. von Wedel-Parlow, S. Schrot, J. Lemmen, L. Treeratanapiboon, J. Wegener, H.J. Galla

Brain Res. 1367, 62 (2011).

The impact of pericytes on the blood–brain barrier integrity depends critically on the pericyte differentiation stage

G. Thanabalasundaram, J. Schneidewind, C. Pieper, H.J. Galla

Int. J. Biochem. Cell Biol. 43, 1284 (2011).

Transport of Arylsulfatase A across the Blood-Brain Barrier in Vitro

F. Matthes, P. Wölte, A. Böckenhoff, S. Hüwel, M. Schulz, P. Hyden, J. Fogh, V. Gieselmann, H.J. Galla, U. Matzner

J. Biol. Chem. 286, 17487 (2011).

Cortactin deficiency is associated with reduced neutrophil recruitment but increased vascular permeability in vivo

M. Schnoor, F.P.L. Lai, A. Zarbock, R. Kläver, C. Polaschegg, D. Schulte, H.A. Weich, J.M. Oelkers, K. Rottner, D. Vestweber

J. Exp. Med. 208, 1721 (2011).

Interactions of the prion peptide (PrP 106–126) with brain capillary endothelial cells: coordinated cell killing and remodeling of intercellular junctions

I. Cooper, K.C.-K. Malina, A. Cagnotto, G. Bazzoni, M. Salmona, V.I. Teichberg

J. Neurochem. 116, 467 (2011).

Effect of the non-ionic surfactant Poloxamer 188 on passive permeability of poorly soluble drugs across Caco-2 cell monolayers

S.M. Fischer, M. Brandl, G. Fricker

J. Pharm. Biopharm. 79, 416 (2011).

Transmigration of Melanoma Cells through the Blood-Brain Barrier: Role of Endothelial Tight Junctions and Melanoma-Released Serine Proteases

C. Fazakas, I. Wilhelm, P. Nagyösz, A.E. Farkas, J. Hasko, J. Molnar, H. Bauer, H.C. Bauer, F. Ayaydin, N.T.K. Dung, L. Siklos, I.A. Krizbai

PLoS ONE 6, e20758 (2011).

HI 6 human serum albumin nanoparticles - Development and transport over an in vitro blood-brain barrier model

M. Dadparvaz, S. Wagner, S. Wien, J. Kufleitner, F. Worek, H. von Briesen, J. Kreutera

Tox. Lett. 206, 60 (2011).

2010 年

Regulation of human epithelial tight junction proteins by *Lactobacillus plantarum* in vivo and protective effects on the epithelial barrier

J. Karczewski, F.J. Troost, I. Konings, J. Dekker, M. Kleerebezem, R.-J.M. Brummer, J.M. Wells

Am. J. Physiol. Gastrointest. Liver Physiol. 298, G851 (2010).

In vitro-Testverfahren zur Toxikologie von Nanomaterialien

A. Kroll, D. Hahn, J. Schnekenburger

BIOspectrum 16, 48 (2010).

Metalloproteinase mediated occludin cleavage in the cerebral microcapillary endothelium under pathological conditions

M. Lischper, S. Beuck, G. Thanabalasundaram, C. Pieper, H.J. Galla
Brain Res. 1326, 114 (2010).

Regulation of the blood-brain barrier integrity by pericytes via matrix metalloproteinases mediated activation of vascular endothelial growth factor in vitro

G. Thanabalasundaram, C. Pieper, M. Lischper, H.J. Galla
Brain Res. 1347, 1 (2010).

Characterization of immortalized choroid plexus epithelial cell lines for studies of transport processes across the blood-cerebrospinal fluid barrier

J. Kläs, H. Wolburg, T. Terasaki, G. Fricker, V. Reichel
Cerebrospinal Fluid Res. 7, 11 (2010).

In vitro evaluation of liposomes containing bio-enhancers for the oral delivery of macromolecules

J. Parmentier, F.J. Hartmann, G. Fricker
Euro. J. Pharm. Biopharm. 76, 394 (2010).

Epithelial Barrier Resistance is Increased by the Divalent Cation Zinc in Cultured MDCKII Epithelial Monolayers

G. Carr, J.A. Wright, N.L. Simmons
J. Membr. Biol. 237, 115 (2010).

Functionalized gold nanoparticles: a detailed in vivo multimodal microscopic brain distribution study

F. Sousa, S. Mandal, C. Garrovo, A. Astolfo, A. Bonifacio, D. Latawiec, R.H. Menk, F. Arfelli, S. Hüwel, G. Legname, H.J. Galla, S. Krol
Nanoscale 2, 2826 (2010).

Nanoparticulate Transport of Oximes over an In Vitro Blood-Brain Barrier Model

S. Wagner, J. Kuffleitner, A. Zensi, M. Dadparvar, S. Wien, J. Bungert, T. Vogel, F. Worek, J. Kreuter, H. von Briesen
PLoS ONE 5, e14213 (2010).

2009 年

Control of the blood-brain barrier by glucocorticoids and the cells of the neurovascular unit

S. Kröll, J. El-Gindi, G. Thanabalasundaram, P. Panpumthong, S. Schrot, C. Hartmann, H.J. Galla
Ann. N.Y. Acad. Sci. 1165, 228 (2009).

Closing the gap between the in-vivo and in-vitro blood-brain barrier tightness

K.C.-K. Malina, I. Cooper, V.I. Teichberg
Brain Res. 1284, 12 (2009).

Regulation of major efflux transporters under inflammatory conditions at the blood brain barrier in vitro

M. von Wedel-Parlow, P. Wölte, H.J. Galla
J. Neurochem. 111, 111 (2009).