

Prof. Dr. Carola Förster

1. publications in peer-reviewed journals

- (65) Shityakov S and [Foerster CY](#) (2018) Computational simulation and modeling of the blood-brain barrier pathology. *Histochemistry and Cell Biology*. ID: HACB-D-18-00055. *accepted*
- (64) Shityakov S, Roewer N, [Förster CY](#), Tran HT, Vao W, Broscheit JA (2018) Investigation of crystalline and amorphous forms of Aluminum and its alloys: computational modeling and experiment. **NANO**. 2018; March, Volume 13, Issue 03, <https://doi.org/10.1142/S1793292018500261>.
- (63) Shityakov S, Roewer N, [Förster CY](#), Broscheit JA (2017) In silico investigation of propofol binding sites in human serum albumin using explicit and implicit solvation models. **Computational Biology and Chemistry**. 2017; Sep 70:191–197.
- (62) Shityakov S, Roewer N, [Förster CY](#), Broscheit JA (2017) In silico Modeling of Indigo and Tyrian Purple Single-Electron Nano-Transistors using Density Functional Theory Approach. **Nanoscale Research Letter** 2017 Dec;12(1):439.
- (61) Neuhaus W, Krämer T, Neuhoff A, Thal S, [Foerster CY](#) (2017) Multifaceted mechanisms of WY-14643 to stabilize the blood-brain barrier during ischemia. **Frontiers in Molecular Neuroscience**. 2017; 10:149.
- (60) Shityakov S, Broscheit JA, Roewer N, [Förster CY](#) (2017) In silico models for nanotoxicity evaluation and prediction at the blood-brain barrier interface. **Computational Toxicology**. 2017; May; 2:20-27.
- (59) Shityakov S, Salmas R, Durdagi S, Roewer N, [Förster CY](#), Broscheit J (2017) Solubility profiles, hydration and desolvation of curcumin complexed with γ -cyclodextrin and hydroxypropyl- γ -cyclodextrin. **Journal of Molecular Structure**. 1134 (2017) 91-98.
- (58) Dilling C, Roewer N, [Förster CY](#) and Burek, M (2017) Multiple protocadherins are expressed in brain microvascular endothelial cells and might play a role in tight junction protein regulation. **Journal of Cerebral Blood Flow and Metabolism**. 2017; Jan 1:271678X16688706. doi: 10.1177/0271678X16688706
- (57) Shityakov S, Salmas R, Durdagi S, Salvador E, Pápai K, Yañez-Gascón M, Perez-Sanchez H, Puskás I, Roewer N, [Förster CY](#), Broscheit JA (2016) Characterization, In Vivo Evaluation and Molecular Modeling of Different Propofol-Cyclodextrin Complexes to Assess Their Drug Delivery Potential at The Blood-Brain Barrier Level. **Journal of Chemical Information and Modeling**. 2016; Oct 24;56(10):1914-1922.
- (56) Jais A, Solas M, Backes H, Chaurasia B, Kleinridders A, Theurich S, Mauer J, Steculorum SM, Hampel B, Goldau J, Alber J, [Förster CY](#), Eming SA, Schwaninger M, Ferrara N, Karsenty G, Brüning JC (2016) Myeloid Cell-Derived VEGF Is Required To Maintain Brain Glucose Uptake And To Limit Cognitive Impairment In Obesity. **Cell**. 2016; May 5;165(4):882-95.
- (55) Kumar N, Srivastava S, Burek M, [Förster CY](#), Roy P (2016) Assessment of estradiol-induced gene regulation and proliferation in an immortalized mouse immature Sertoli cell line. **Life Science**. 2016; Mar 1;148:268-78.
- (54) Shityakov S, Salmas R, Salvador E, Roewer N, Broscheit J and [Förster CY](#) (2016) Evaluation of the potential toxicity of unmodified and modified cyclodextrins on murine blood-brain barrier endothelial cells. **Journal of Toxicological Sciences**. 2016;41(2):175-84.

- (53) Neuhaus W, Schlundt M, Fehrholz M, Ehrke A, Kunzmann S, Liebner S, Speer CP, Förster CY (2015) Multiple antenatal dexamethasone treatment alters brain vessel differentiation in newborn mouse pups. **Plos One**. 2015, Aug 14;10(8):e0136221.
- (52) Salvador E, Burek M, Förster CY (2015) Stretch and/or oxygen glucose deprivation (OGD) in an in vitro traumatic brain injury (TBI) model induces inflammatory cascade. **Frontiers in Cellular Neuroscience**. 2015; Aug 21;9:323.
- (51) Shityakov S, Dandekar T and Förster C (2015) Gene expression profiles and protein-protein interaction network analysis in AIDS patients with HIV-associated encephalitis and dementia. **HIV AIDS (Auckl)**. 2015; Nov 18;7:265-76.
- (50) Shityakov S, Puskás I, Roewer N, Förster CY and Broscheit JA (2015) Optimized sevoflurane formulation with sulfobutylether- β -cyclodextrin: technical note. **Journal of Advanced Clinical Pharmacology**. 2015; 2(1):12-14.
- (49) Shityakov S, Puskás I, Papai K, Salvador E, Roewer N, Förster CY, Broscheit JA (2015) Sevoflurane-sulfobutylether- β -cyclodextrin complex: preparation, characterization, cellular toxicity, molecular modeling, and the blood-brain barrier transport studies. **Molecules**. 2015; Jun 3;20(6):10264-79.
- (48) Shityakov S, Sohajda T, Puskás I, Roewer N, Förster CY, Broscheit JA (2014) Ionization states, cellular toxicity and molecular modelling studies of midazolam complexed with trimethyl- β -cyclodextrin. **Molecules**. 2014; Oct 21; 19(10):16861-76.
- (47) Neuhaus W, Gaiser F, Mahringer A, Franz J, Riethmüller C, Förster CY (2014) The pivotal role of astrocytes in an in-vitro stroke model of the blood-brain barrier. **Frontiers in Cellular Neuroscience**. 2014; 8 :352, doi: 10.3389/fncel.2014.00352.
- (46) Shityakov S, Salvador E, Pastorin G, Förster CY (2015) Blood-brain barrier transport studies, aggregation, and molecular dynamics simulation of multiwalled carbon nanotube functionalized with fluorescein isothiocyanate. **International Journal of Nanomedicine**. 2015 ; 10: 1703-1713
- (45) Burek M, Steinberg K, Förster CY (2014) Mechanisms of transcriptional activation of the mouse claudin-5 promoter by estrogen receptor alpha and beta. **Molecular and Cellular Endocrinology**. 2014; Jul 5;392(1-2):144-51.
- (44) Burek M, Haghikia A, Gold R, Roewer N, Chan A and Förster CY (2014), Differential cytokine release from brain microvascular endothelial cells treated with dexamethasone and multiple sclerosis patient sera. **Journal of Steroids & Hormonal Science**. 2014; 5:128. doi: 10.4172/2157-7536.1000128
- (43) Blecharz K G, Burek M, Bauersachs J, Thum T, Tsikas D, Widder J, Roewer N and Förster CY (2014) Inhibition of proteasome-mediated glucocorticoid receptor degradation restores nitric oxide bioavailability in myocardial endothelial cells. **Biology of the Cell**. 2014; Jul;106(7):219-35.
- (42) Shityakov S, Förster CY, (2014) In silico predictive model to determine vector-mediated transport properties for the blood-brain barrier choline transporter. **Advances and Applications in Bioinformatics and Chemistry**. 2014; Sep 2; 7:23-36.
- (41) Shityakov S, Förster CY, Rethwilm A, Dandekar T (2014) Evaluation and prediction of the HIV-1 central polypurine tract influence on foamy viral vectors to transduce dividing and growth-arrested cell. **Scientific World Journal**. 2014;487969. doi: 10.1155/2014/487969.

- (40) Shityakov S, Broscheit JA, Roewer N, [Foerster CY](#) (2014) Three-dimensional quantitative structure-activity relationship and docking studies on a series of anthocyanin derivatives as cytochrome P450 3A4 inhibitors. **Advances and Applications in Bioinformatics and Chemistry**. 2014; Mar 25;7:11-21.
- (39) Shityakov S, [Foerster CY](#) (2013) Pharmacokinetic delivery and metabolizing rate of nifedipine incorporated in hydrophilic and hydrophobic cyclodextrins using two-compartment mathematical model. **The Scientific World Journal**. 2013; Dec 3;2013:131358.
- (38) Shityakov S, Salvador E, [Förster CY](#) (2013) In silico, in vitro, and in vivo methods to analyse drug permeation across the blood-brain barrier: A critical review. **OA Anaesthetics**. 2013; Jul 01;1(2):13.
- (37) Thal SC, Schaible EM, Neuhaus W, Scheffer D, Brandstetter M, Engelhard K, Wunder C, [Förster CY](#) (2013) Inhibition of proteasomal glucocorticoid receptor degradation restores dexamethasone-mediated stabilization of the blood-brain-barrier after traumatic brain injury. **Critical Care Medicine**. 2013; 41(5):1305-15.
- Editorial:** Kahles T, Vatter H, (2013) Glucocorticoids for the Prevention of Cerebral Edema in Traumatic Brain Injury: Mission (Im)possible?. **Critical Care Medicine**. 41(5): 1378-79.
- (36) Salvador E, Neuhaus W, [Förster CY](#) (2013) Stretch in brain microvascular endothelial cells (cEND) as an in vitro traumatic brain injury model of the blood brain barrier. *Journal of Visualized Experiments*. 80:e50928. doi: 10.3791/50928
- (35) Shityakov S and [Förster CY](#) (2013) Multidrug resistance protein P-gp interaction with nanoparticles (fullerenes and carbon nanotube) to assess their drug delivery potential: a theoretical molecular docking study. **International Journal of Computational Biology and Drug Design**. 6(4): 343-357.
- (34) Prinz M; Parlar S; Bayraktar G; Alptüzün V; Erciyas E; Fallarero A; Karlsson D; Vuorela P; Burek M; [Förster CY](#); Turunc E; Armagan G; Yalcin A; Holzgrabe U, (2013) 1,4-Substituted 4-(1H)-pyridylene-hydrazone-type inhibitors for AChE, BuChE and amyloid- β aggregation crossing the blood-brain-barrier. **European Journal of Pharmaceutical Sciences**. 49(4): 603-661.
- (33) Shityakov S, [Förster CY](#) (2014) In silico structure-based screening of versatile P-glycoprotein inhibitors using polynomial empirical scoring functions. **Advances and Applications in Bioinformatics and Chemistry**. Volume 2014, 7:1-9.
- (32) Shityakov S, Neuhaus W, Dandekar T and [Förster CY](#) (2012) Analyzing molecular polar surface descriptors to predict blood-brain barrier permeation. **International Journal of Computational Biology and Drug Design**. 6(1-2):146-56.
- (31) Neuhaus W, Samwer F, Kunzmann S, Muellenbach R, Wirth M, Speer C P, Roewer N, [Förster CY](#) (2012) Lung endothelial cells strengthen, but brain endothelial cells weaken barrier properties of a human alveolar epithelium cell culture model. **Differentiation**. 84: 294–304.
- (30) Burek M, Salvador E, [Förster CY](#) (2012) Generation of an immortalized murine brain microvascular endothelial cell line as an in vitro blood brain barrier model. **Journal of Visualized Experiments**. (66), e4022 10.3791/4022, DOI: 10.3791/4022
- (29) Shityakov S, Broscheit JA, [Förster CY](#) (2012) β -Cyclodextrin dimer complexes of dopamine and levodopa derivatives to assess drug delivery to the central nervous system: ADME and molecular docking studies. **International Journal of Nanomedicine**. 7: 3211–3219.

- (28) Dakwar G, Kaplun V, Kojukarov L, Gorenbein P, Schumacher I, Förster CY, Stepensky D (2012) Toxicity assessment of extracts from infusion sets in cEND brain endothelial cells. **International Journal of Pharmaceutics**. 434: 20-27.
- (27) Neuhaus W, Burek M, Djuzenova CS, Thal S, Koepsell H, Roewer N, and Förster CY (2012) Addition of NMDA-receptor antagonist MK801 during oxygen/glucose deprivation moderately attenuates the upregulation of glucose uptake after subsequent reoxygenation in brain endothelial cells. **Neuroscience Letters**. 506: 44-49.
- (26) Neuhaus W, Schick MA, Bruno RR, Schneiker B, Foerster C, Roewer N, Wunder C (2012) The effects of colloid solutions on renal proximal tubulus cells in vitro. **Anesthesia and Analgesia**. 114(2): 371-374.
- (25) Kleinschnitz C, Blecharz K, Kahles T, Schwarz T, Kraft P, Göbel K, Meuth SG, Burek M, Thum T, Stoll G and Förster CY (2011) Glucocorticoid insensitivity at the hypoxic blood-brain-barrier can be reversed by inhibition of the proteasome. **Stroke**. 42(4):1081-1089.
- (24) Bueter W, Saunders NR, Mallard C, Bauer H-C, Stolp HB, Kavelaars A, Dammann O, for the NEUROBID consortium* (2010) NEUROBID — an EU-funded project to study the developing brain barriers. **International Journal of Developmental Neuroscience**. 28(5):411-2, * Förster CY is member of the NEUROBID consortium.
- (23) Muellenbach R M, Kredel M, Wilhelm J, Kuestermann J, Fink L, Siebenlist G, Klosterhalfen B, Foerster CY, Kranke P, Wunder C, Roewer N, Brederlau J (2010) High-frequency oscillation combined with arteriovenous extracorporeal lung assist reduces lung injury. **Experimental Lung Research**. 36(3): 148-58.
- (22) Blecharz K, Chan A, Haghikia A, Kruse N, Drenckhahn D, Gold R, Roewer N, Foerster CY (2010) Glucocorticoid effects on endothelial barrier function in the murine brain endothelial cell line cEND incubated with sera from patients with multiple sclerosis. **Multiple Sclerosis Journal**. 16(3): 293-302.
- (21) Lecht S, Förster CY, Arien-Zakay H, Marcinkiewicz C, Lazarovici Ph, Lelkes PI (2010) Cardiac microvascular endothelial cells express and release nerve growth factor but not fibroblast growth factor-2. **In Vitro Cellular & Developmental Biology – Animal**. 46(5):469-76.
- (20) Burek M, Arias-Loza P A, Pelzer T, Roewer N, Förster CY (2009) Claudin-5 as a novel estrogen target in vascular endothelium. **Arteriosclerosis, Thrombosis, and Vascular Biology**. 30(2):298-304.
- (19) Burek M, Förster C (2009) Cloning and characterisation of the murine claudin-5 gene promoter. **Molecular and Cellular Endocrinology**. 298 (1-2):19-24.
- (18) Harke N, Leers J, Kietz S, Drenckhahn D, Förster CY (2008) Glucocorticoids regulate the human occludin gene through a single imperfect palindromic glucocorticoid response element. **Molecular and Cellular Endocrinology**. 295:39-47.
- (17) Förster CY, Burek M, Romero I A, Weksler B, Couraud P O, Drenckhahn D (2008) Differential effects of hydrocortisone and TNF α on tight junction proteins in an in vitro model of the human blood-brain barrier. **The Journal of Physiology**. 586.7:1937-1949.
- (16) Blecharz K, Drenckhahn D, Förster CY (2008) Glucocorticoids increase VE-cadherin expression and cause cytoskeletal re-arrangements in murine brain endothelial cEND cells. **Journal of Cerebral Blood Flow & Metabolism**. 28: 1139-49.

- (15) Förster CY, Kahles T, Kietz S, Drenckhahn D (2007) Dexamethasone induces the expression of metalloproteinase inhibitor TIMP-1 in the murine cerebral vascular endothelial cell line cEND. **The Journal of Physiology**. 580.3: 937-49.
- (14) Silwedel C, Förster CY (2006) Differential susceptibility of cerebral and cerebellar endothelial cell lines to blood-brain barrier breakdown in response to inflammatory stimuli. **Journal of Neuroimmunology**. 179(1-2):37-45.
- (13) Förster CY, Waschke J, Burek M, Leers J, Drenckhahn D (2006) Glucocorticoid effects on microvascular endothelial barrier permeability are brain specific. **The Journal of Physiology**. 573.2: 413-25.
- (12) Helguero L A, Hedengran-Faulds M, Förster CY, Gustafsson J-Å, Haldosén L-A (2006) Dax-1 is regulated by EGF throughout mammary epithelial cell differentiation. **Endocrinology** 147(7):3249-59.
- (11) Förster CY, Silwedel C, Golenhofen N, Kietz S, Mankertz J, Drenckhahn D (2005) Occludin as direct target for glucocorticoid-induced improvement of blood-brain barrier properties in a murine in vitro system. **The Journal of Physiology**. 565.2:475-86.
- (10) Förster CY, Kietz S, Hultenby K, Warner M, Gustafsson J.-A. (2004) Characterization of the ERbeta-/- mouse heart. **Proceedings of the National Academy of Sciences USA**. 101(39):14234-9.
- (9) Genner M, Förster CY, and Findlay JBC (2003) Developing a scientific career: Issues concerning the present state of Marie Curie Fellowships – Perceived Futures. **Proceedings of the EC Marie Curie Fellowships**.
- (8) Förster CY, Makelä S, Wärrä A, Becker D, Hultenby K, Warner M, Gustafsson J-A (2002) Involvement of estrogen receptor β in terminal differentiation of mammary epithelium. **Proceedings of the National Academy of Sciences USA**. 99:15578-15583.
- (7) Förster CY, Revuelta J, Krämer R (2001) Carrier-mediated transport of riboflavin in *Ashbya gossypii*. **Applied Microbiology and Biotechnology**. 55:85-89.
- (6) Förster CY, Kane P M (2000) Cytosolic Ca²⁺ homeostasis is a constitutive function of the V-ATPase in *Saccharomyces cerevisiae*. **Journal of Biological Chemistry**. 275: 38245-38253.
- (5) Förster CY (1999) Biochemische und molekularbiologische Charakterisierung des Riboflavintransports in *Ashbya gossypii*. **Dissertation**, Universität Hannover JUEL-3626.
- (4) Förster CY, Ruffert S, Santos M A, Krämer, Revuelta J L (1999) Physiological consequences of disruption of the VMA1 gene in the riboflavin overproducer *Ashbya gossypii*. **Journal of Biological Chemistry**. 274: 9442 – 9448.
- (3) Förster CY, Marienfeld S, Wilhelm R, Krämer R (1998) Organelle purification and selective permeabilization of the plasma membrane: two different approaches to study vacuoles of the filamentous fungus *Ashbya gossypii*. **FEMS Microbiology Letters**. 167: 209-214.
- (2) Förster CY, Marienfeld S, Wendisch V F, Krämer R (1998) Adaptation of the filamentous fungus *Ashbya gossypii* to hyperosmotic stress: different osmoresponse to NaCl and mannitol stress. **Applied Microbiology and Biotechnology**. 50: 219-226.
- (1) Förster CY, Marienfeld S, Wilhelm R, Krämer R (1997) Monitoring riboflavin fluxes across the vacuolar membrane of *A. gossypii* by selective permeabilization of the plasma membrane. **Fak. Landbouww. Gent**. 62: 245-11248 (ungelistete Zeitschrift).

2. review articles

- (9) Shityakov S, Broscheit JA, Roewer N, Förster CY (2017) In silico models for nanotoxicity evaluation and prediction at the blood-brain barrier level: A mini-review **Journal of Computational Toxicology**. 2(2017):20-27.
- (8) Salvador E, Burek M, (2016) Tight Junctions and the Tumor Microenvironment. **Current Pathobiology Reports**. 4: 135. Invited review.
- (7) Helms HC, Abbott NJ, Burek M, Ceccelli R, Couraud PO, Deli M, Förster CY, Galla HJ, Romero IA, Shusta EV, Stebbins M, Vandenhoute E, Weksler B, Brodin B (2016) In vitro models of the blood-brain barrier; An overview of commonly used brain endothelial cell culture models and guidelines for their use. **Journal of Cerebral Blood Flow and Metabolism**. Vol. 36(5) 862–890. Invited review.
- (6) Salvador E, Shityakov S, Förster CY (2014) Glucocorticoids and EC barrier function. **Special Issue of Cell and Tissue Research**. 355 (3): 597-605.
- (5) Bruhn C, Manninga H and Förster CY (2012) Überwindung der Blut-Hirn-Schranke – welche Methoden haben Zukunft. **Med. Wochenschrift**. 137 (21): 1086-1087.
- (4) Burek M, Förster C (2010) Glucocorticoid-mediated Regulation of Tight Junctions in Brain Vascular Endothelium. **Brain Research Journal**. 3 (1):37-52.
- (3) Förster CY (2008) Tight junctions and the modulation of barrier function in disease. Eingeladener Übersichtsartikel zum 50jährigen Jubiläum: **Histochemistry and Cell Biology**. 130(1):55-70 Epub 2008 Apr 16.
- (2) Förster CY, Kietz S (2006) Rolle von Östrogenrezeptor beta in der Vermittlung zellulärer Differenzierungsprozesse. Eingeladener Übersichtsartikel in Rubrik „Schlaglicht“: **Biospektrum**. 2:162 - 164 Biospektrum Akad. Verlag. Invited review.
- (1) Förster CY (2005) Glucocorticoid regulation of blood brain barrier permeability. **Physiology News**. 61:34-35. Invited review.

3. book chapters

- (8) Salvador E, Burek M, Förster CY “Blood-Brain Barrier – Methods and Protocols” Editor: Barichello T, **Springer Nature**, 2018 in Vorbereitung
- (7) Salvador E, Burek M, Förster CY, „An In Vitro Model of Traumatic Brain Injury“. In: „Traumatic and Ischemic Injuries; Methods in Molecular Biology“ Eds.: B. Tharakan and J.M. Walker. **Springer Protocols**, NY, 2018, chapter 17, ISBN: 978-1-4939-7524-2, p.219-227.
- (6) Burek M, Salvador E, Förster CY, “Development of mouse in vitro blood-brain barrier models“. In: “Stem Cell Technologies in Neuroscience“. Eds.: E. Snyderk and A. K. Srivastava. **Springer Neuromethods**, NY, 2017, chapter 9, ISBN: 978-1-4939-7022-3, p.135-143.
- (5) Burek M, Salvador E and Förster CY, “Cell-based in vitro blood-brain barrier models for drug permeability studies.“ In: „Concepts and models for drug permeability studies – Cell and tissue-based in vitro culture models“. Editor: B. Sarmento. **Elsevier**, 2015, 1st Edition, ISBN: 9780081000946, p.346-356.
- (4) Salvador E and Forster CY, “The causal contribution of selective blood-brain barrier to glucose transport in brain edema and function deterioration after ischemia and brain injury.“ In: Adaptation Biology and Medicine: New Developments. Eds. L.M. Popescu, A.R. Hargens and P.K. Singal. **Narosa Publishing House**, New Delhi, 2013, Vol. 7, ISBN: 978-81-8487-274-9, pp. 213 – 220.

(3) Neuhaus W, Burek M, Wunder C and Förster CY, „Novel strategies to restore Blood-Brain Barrier integrity after brain injury“, in “The Blood-Brain Barrier: New Research“, Publisher: **Nova Science**, 1st Edition, Hauppauge NY, 2012 1st quarter, chapter 5, ISBN 978-1-62100-766-1, pp. 148-171.

(2) Burek M, Förster CY, “Glucocorticoid-mediated Regulation of Tight Junctions in Brain Vascular Endothelium, in “Glucocorticoids: Effects, Action Mechanisms, and Therapeutic Uses“, Publisher: **Nova Science**, 1st Edition, Hauppauge NY, 2010 4th quarter, chapter 9, ISBN 978-1-61728-758-9; pp. 187-202.

(1) Förster CY, Kietz S and Gustafsson J.-A, “Estrogen receptor b involvement in cell adhesion signaling and gap junctional communication in differentiating mammary gland“ in “Parker, M.G. and Valverde, M.A. (Eds.), Genomic vs. Non-Genomic Steroid Actions: Encountered or Unified Views“, Publisher: **Serie Universitaria**, 2002, Vol. 131, Madrid, pp. 63-65.

4. conference proceedings

(6) Oerter S, ... Grieb-Porsch S, Förster CY, Monoranu C, Koepsell H, Bohnert M (2016) Die Expression von Natrium-Glukose-Transportern im menschlichen Gehirn post mortem. **Rechtsmedizin**. 26(4):365.

(5) Shityakov S, Förster CY (2015) Systems biology approaches for discovering new glucocorticoid-mediated pathways at the blood-brain barrier. **Journal of Vascular Research**. 52(suppl 1) p. 33.

(4) Shityakov S, Förster CY (2014) Molecular dynamics simulation of propofol bound to human serum albumin using linear interaction energy method. **Medicinal chemistry**. 2014, 4:12.

(3) Burek M, Blecharz KG, Bauersachs J, Thum T, Tsikas D, Widder J, Roewer N, Förster CY (2012) Restoration of endothelial nitric oxide bioavailability in myocardial endothelial cells treated with dexamethasone. **Vascular Pharmacology**. 56(5/6):351.

(2) Kleinschnitz C, Blecharz K, Kahles T, Schwarz T, Kraft P, Göbel K, Meuth SG, Burek M, Thal S, Scheffer D, Thum T, Stoll G, and Förster CY (2012) Novel steroid-based strategy to restore blood brain barrier integrity after ischemic brain injury. **European Journal of Anaesthesiology**. 29 (A06): 49.

(1) Kleinschnitz C, Blecharz K, Kahles T, Schwarz T, Kraft P, Göbel K, Meuth SG, Burek M, Thal S, Scheffer D, Thum T, Stoll G, and Förster CY (2012) Glucocorticoid signalling and resistance at the blood-brain barrier in central nervous system disorders. Conference Paper in **Vascular Pharmacology**. 56(5-6):355.