

Carsten Uhd Nielsen
Department of Physics, Chemistry and Pharmacy
Email: cun@sdu.dk
Phone: 65509427



Employment

Professor

Department of Physics, Chemistry and Pharmacy
University of Southern Denmark
Odense M
1. Apr 2015 → present

Previous positions:

2009-2015: Associate Professor, Drug Transporters in ADME, Department of Pharmaceutics and Analytical Chemistry, the Faculty of Pharmaceutical Sciences (PHARMA), University of Copenhagen, 2-Universitetsparken, DK-2100 Copenhagen (1/10-2009 – 1/4-2015, 50% from 1/4-2015 – 31/6-2015).

2007-2009: Part-time Associate Professor, Molecular Biopharmaceutics, Department of Pharmaceutics and Analytical Chemistry, Department of Pharmaceutical Sciences, University of Copenhagen, and part-time Research Scientist, Bioneer-FARMA, Bioneer, Hørsholm. (1/10-2007 -30/9-2009)

2004 -2007: Associate Professor, Molecular Biopharmaceutics, Department of Pharmaceutics (from August 2005 Department of Pharmaceutics and Analytical Chemistry), The Danish University of Pharmaceutical Sciences, Copenhagen, Denmark (1/6 2004 – 30/9-2007)

2001-2004: Assistant Professor, Department of Pharmaceutics, The Royal Danish School of Pharmacy, Copenhagen, Denmark (1/10 2001- 30/5 2004).

2001: Research Assistant, Department of Pharmaceutics, The Royal Danish School of Pharmacy, Copenhagen, Denmark (1/7-30/9 2001).

1998-2001: Ph.D.-Student, Department of Pharmaceutics, The Royal Danish School of Pharmacy, Copenhagen, Denmark (1/7-1998 – 30/6-2001).

1998: Pharmacist, Quality Assurance and Quality Control Department, Nycomed Denmark, Nycomed Amersham (1/2-30/6 1998).

Management, committees, appointments and boards:

2017–2020: Head of “Pharmaceutics and Biopharmaceutics” section at Department of Physics, Chemistry and Pharmacy, Faculty of Science, University of Southern Denmark.

2018 - Member of the Danish Natural Sciences Academy, Dansk Naturvidenskabelig Akademi (DNA).

2017-2021: Ministerial approved as external examiner for the pharmaceutical educations in Denmark. (in Danish: beskikket censor i censorkorpset for de farmaceutiske uddannelser i Danmark) 1st September 2017 – 31st August 2021.

2017–present: Medlem af faggruppe 35 for den bibliometriske forskningsindikator (BFI) - Farmaceutisk videnskab under Styrelsen for Forskning og Uddannelse for perioden fra den 1. januar 2017 til og med den 31. December 2021. 1/1-2017 - now.

2016 -: Course director for “Drug Transporters in ADME (FA806)” elective Master level course. Principal initiator and coordinator on developing the course under the Master of Pharmacy program, SDU.

2016-: Course director and developer for “Drug formulation and production C (FA504) incl. practical exercises (5 ECTS)” SDU.

2013-2017: Ministerial approved as external examiner for the pharmaceutical educations in Denmark. (in Danish: beskikket

sensor i censorkorpset for de farmaceutiske uddannelser i Danmark) 1st September 2013 – 31st August 2017.

2007- 2010: Member of the Ph.D. scholarship granting committee at PHARMA, University of Copenhagen.

2007- 2010: Member of the Ph.D. study board at PHARMA, University of Copenhagen.

2007 -2008: Course director for “Drug discovery and development”. Principal initiator and coordinator on developing the course under the Master of Science in pharmaceutical science program, PHARMA, University of Copenhagen.

2005 - 2008: Program director for the Master of Science in pharmaceutical science education at DUPS later PHARMA at University of Copenhagen.

2004 - 2015: Course director for “Drug formulation/biopharmaceutics - practical Course” Farma, Later University of Copenhagen.

2006 -2007: Member of the working group for developing a joint ULLA M.Sc. Degree.

2005-2007: Member of the pharmaceutical education committee at The Danish Pharmacists association

2004 -2005: Member of the planning committee for developing and implementing the bachelor degree in Pharmaceutics at FARMA.

Assessment Committees for Academic Positions: 10 positions

Education:

2001:Ph.D.-Degree (20/8-2001) awarded from the Royal Danish School of Pharmacy, Copenhagen, Denmark.

1999/2000:Ph.D.-student in Professor Wolfgang Sadee’s laboratory, Department of Biopharmaceutical Sciences, School of Pharmacy at University of California, San Francisco (6 months). In the Sadee lab I worked on identification of new POT transporters using PCR, cloning techniques and bioinformatics.

1998-2001:Ph.D. student at Center for Drug Design and Transport, Department of Pharmaceutics, The Royal Danish School of Pharmacy, Copenhagen, Denmark. At CD2T I worked on developing a prodrug approach for increasing intestinal transport of low permeable compounds via the intestinal di/tri-peptide transporter (hPEPT1).

1997:Master of Science (Pharm.) (17/9-1997) from the Royal Danish School of Pharmacy, Copenhagen, Denmark. License to practice at a European Pharmacy

1997:Visiting scientist in Dr. Philip L. Smith’s Drug Delivery Department at SmithKline Beecham Pharmaceuticals in Philadelphia, PA, USA (6 months). Here I worked on in Vitro Ussing chamber methods (Rabbit and Rat small and large intestinal segments) to study intestinal efflux transporters such as p-glycoprotein.

1996:Internship at Næstved Svane Pharmacy (6 months).

1992:Enrolled at The Royal Danish School of Pharmacy, Copenhagen, Denmark.

1992:Upper secondary leaving exam from Vesthimmerlands Gymnasium (Chemistry, Biology and Mathematics), Aars, Denmark.

Courses

1996

MayAccounting and EconomyNiels Brock Business College, Copenhagen, Denmark

1997

April Radiation safety courseSmithKline Beecham internal course, Collegeville, PA, USA

May Guidelines for working with laboratory animalsSmithKline Beecham internal course Collegeville, PA, USA

1998

June Goal Directed Project Management (GDPM), by Bjørn Reidar Solstad, Nycomed Oslo

Nycomed Amersham internal Course,

Hobro, Denmark

October Biological membranes: Drug transport and drug targetsPh.D. Course, The Royal Danish School of Pharmacy, Copenhagen, Denmark

1999

January Teaching and learningPh.D. Course, Gilleleje, Denmark.

May Drug deliveryPh.D. Course, The Royal Danish School of Pharmacy, Copenhagen, Denmark

June/JulyULLA SummerschoolULLA – Copenhagen, Denmark

2000

March Radiation safety course University of California, San Francisco, CA, USA
June Clinical evaluation of drug products Ph.D. Course, The Royal Danish School of Pharmacy, Copenhagen, Denmark
2001
March Drug design and discovery Ph.D. Course, The Royal Danish School of Pharmacy, Copenhagen, Denmark

2002

January Confocal Laser Scanning Microscopy
Internal course at the Royal Danish School of Pharmacy, Copenhagen, Denmark
September Transporters 2002 International meeting, Seeon, Germany

2003

Autumn 2002 - spring 2003 Higher education teaching and teaching practice (Adjunkt pædagogikum) University of Copenhagen

2005

Spring Management of complex projects (Ledelse og styring af komplekse projekter) Copenhagen Business School
Autumn Environmental Health, general course University of Roskilde

2008

Autumn Course for main supervisors of ph.d. students: Supervising ph.d. students. PUMA, University of Copenhagen
2012

Autumn Certified to teach English-medium courses University of Copenhagen

2015

Spring Project management for Scientist I University of Copenhagen
Autumn Project management for Scientist II University of Copenhagen

2016

Spring Laboratory Animal Science, part 1 (EU function AD course) University of Southern Denmark

2017

Spring Laboratory Animal Science EU function B University of Southern Denmark

Research outputs

Oral etoposide and zosuquidar bioavailability in rats: Effect of co-administration and in vitro-in vivo correlation of P-glycoprotein inhibition

Nielsen, R. B., Holm, R., Pijpers, I., Snoeys, J., Nielsen, U. G. & Nielsen, C. U., Dec 2021, In: International journal of pharmaceutics: X. 3, 10 p., 100089.

Exploration of in vitro drug release testing methods for saquinavir microenvironmental pH modifying buccal films

He, S., Jacobsen, J., Nielsen, C. U., Genina, N., Østergaard, J. & Mu, H., Aug 2021, In: European Journal of Pharmaceutical Sciences. 163, 10 p., 105867.

Inhibitory effects of 17- α -ethinyl-estradiol and 17- β -estradiol on transport via the intestinal proton-coupled amino acid transporter (PAT1) investigated *In vitro* and *in vivo*

Nielsen, C. U., Pedersen, M., Müller, S., Kæstel, T., Bjerg, M., Ulaganathan, N., Nielsen, S., Lundgaard Carlsen, K., Nøhr, M. K. & Holm, R., Jan 2021, In: Journal of Pharmaceutical Sciences. 110, 1, p. 354-364

Discovery of a Potent Adenine-Benzyltriazolo-Pleuromutilin Conjugate with Pronounced Antibacterial Activity against MRSA

Heidtmann, C. V., Voukia, F., Hansen, L. N., Sørensen, S. H., Urlund, B., Nielsen, S., Pedersen, M., Kelawi, N., Andersen, B. N., Pedersen, M., Reinholdt, P., Kongsted, J., Nielsen, C. U., Klitgaard, J. K. & Nielsen, P., 24. Dec 2020, In: Journal of Medicinal Chemistry. 63, 24, p. 15693-15708

Microenvironmental pH modifying films for buccal delivery of saquinavir: effects of organic acids on pH and drug release in vitro

He, S., Østergaard, J., Ashna, M., Uhd Nielsen, C., Jacobsen, J. & Mu, H., 30. Jul 2020, In: International Journal of Pharmaceutics. 585, 10 p., 119567.

High-dose etoposide formulations do not saturate intestinal P-glycoprotein: Development, stability, and pharmacokinetics in Sprague-Dawley rats

Al-Ali, A. A. A., Sandra, L., Versweyveld, D., Pijpers, I., Dillen, L., Vermeulen, A., Snoeys, J., Holm, R. & Nielsen, C. U., 15. Jun 2020, In: International Journal of Pharmaceutics. 583, 10 p., 119399.

Acamprosate Is a Substrate of the Human Organic Anion Transporter (OAT) 1 without OAT3 Inhibitory Properties: Implications for Renal Acamprosate Secretion and Drug-Drug Interactions

Antonescu, I. E., Karlgren, M., Pedersen, M. L., Simoff, I., Bergström, C. A. S., Neuhoff, S., Artursson, P., Steffansen, B. & Nielsen, C. U., Apr 2020, In: *Pharmaceutics*. 12, 4, 24 p., 390.

Zosuquidar alters etoposide permeability across Caco-2 cell monolayers by P-glycoprotein inhibition in a concentration-dependent manner

Nielsen, R. B., Nielsen, U. G., Holm, R. & Nielsen, C. U., 7. Jan 2020.

Evaluation of P-glycoprotein efflux activity and cellular toxicity in MDCKII MDR1 cells in a one-pot assay

Al-Ali, A. A. A., Pedersen, M. L. & Nielsen, C. U., 2020.

Transcriptome analysis identifies activated signaling pathways and regulated ABC transporters and solute carriers after hyperosmotic stress in renal MDCK I cells

Rasmussen, R. N., Vielsted Christensen, K., Holm, R. & Nielsen, C. U., Dec 2019, In: *Genomics*. 111, 6, p. 1557-1565

Montmorillonite-surfactant hybrid particles for modulating intestinal P-glycoprotein-mediated transport

Nielsen, R. B., Kahnt, A., Dillen, L., Wuyts, K., Snoeys, J., Nielsen, U. G., Holm, R. & Nielsen, C. U., 25. Nov 2019, In: *International Journal of Pharmaceutics*. 571, 118696.

The permeation of acamprosate is predominantly caused by paracellular diffusion across Caco-2 cell monolayers: A Paracellular Modeling Approach

Antonescu, I. E., Rasmussen, K. F., Neuhoff, S., Frette, X., Karlgren, M., Bergström, C. A. S., Nielsen, C. U. & Steffansen, B., 4. Nov 2019, In: *Molecular Pharmaceutics*. 16, 11, p. 4636-4650

Nonionic surfactants modulate the transport activity of ATP-binding cassette (ABC) transporters and solute carriers (SLC): Relevance to oral drug absorption

Al-Ali, A. A. A., Nielsen, R. B., Steffansen, B., Holm, R. & Nielsen, C. U., 20. Jul 2019, In: *International Journal of Pharmaceutics*. 566, p. 410-433

MRP2-mediated transport of etoposide in MDCKII MRP2 cells is unaffected by commonly used non-ionic surfactants

Nielsen, S., Westerhoff, A. M., Gé, L. G., Carlsen, K. L., Pedersen, M. D. L. & Nielsen, C. U., 30. Jun 2019, In: *International Journal of Pharmaceutics*. 565, p. 306-315

Nfat5 is involved in the hyperosmotic regulation of Tmem184b: a putative modulator of ibuprofen transport in renal MDCK I cells

Rasmussen, R. N., Vielsted Christensen, K., Holm, R. & Nielsen, C. U., 1. Jun 2019, In: *FEBS Open Bio*. 9, 6, p. 1071-1081

Acamprosate is an inhibitor of the renal organic anion transporter (OAT) 1

Antonescu, I-E., Karlgren, M., Pedersen, M., Simoff, I., Bergström, C., Neuhoff, S., Artursson, P., Steffansen, B. & Nielsen, C. U., 14. Jan 2019.

Montmorillonite-surfactant hybrid particles for modulation of intestinal P-glycoprotein mediated transport

Nielsen, R. B., Kahnt, A., Dillen, L., Wuyts, K., Snoeys, J., Nielsen, U. G., Holm, R. & Nielsen, C. U., 14. Jan 2019, p. 53. 1 p.

Amino acid transport in prostate PC-3 cells

Nielsen, S. S., Pedersen, M. & Nielsen, C. U., 13. Jan 2019.

Etoposide transport in MDCKII-MRP2 cells is unaffected by P-gp expression and commonly used pharmaceutical excipients

Nielsen, S., Westerhoff, A. M., Gé, L. G., Lundgaard Carlsen, K., Pedersen, M. & Nielsen, C. U., 13. Jan 2019.

Nonionic surfactants increase digoxin absorption in Caco-2 and MDCKII MDR1 cells: Impact on P-glycoprotein inhibition, barrier function, and repeated cellular exposure

Al-Ali, A. A. A., Steffansen, B., Holm, R. & Nielsen, C. U., 15. Nov 2018, In: International Journal of Pharmaceutics. 551, 1-2, p. 270-280

How is sarcosine transported into prostate PC-3 cells?

Strandgaard, S. K., Pedersen, M. L. & Nielsen, C. U., 23. Aug 2018.

Hyperosmolality regulates mRNA expression of membrane transporters in renal MDCK I cells

Rasmussen, R. N., Christensen, K. V., Holm, R. & Nielsen, C. U., 30. Jan 2018.

Acamprosate permeability across Caco-2 cell monolayer is predominantly paracellular

Antonescu, I-E., Neuhoff, S., Fretté, X., Nielsen, C. U. & Steffansen, B., 29. Jan 2018, p. 25. 1 p.

Nonionic surfactants alter calcein-AM efflux in MDCKII MDR1 cells

Al-Ali, A. A. A., Holm, R., Steffansen, B. & Nielsen, C. U., 29. Jan 2018.

Polysorbate 20 alters the oral bioavailability of etoposide in wild type and mdr1a deficient Sprague-Dawley rats

Al-Ali, A. A. A., Quach, J. R. C., Bundgaard, C., Steffansen, B., Holm, R. & Nielsen, C. U., 2018, In: International Journal of Pharmaceutics. 543, 1-2, p. 352-360

Oral and intravenous pharmacokinetics of taurine in sprague-dawley rats: the influence of dose and the possible involvement of the proton-coupled amino acid transporter, PAT1, in oral taurine absorption

Nielsen, C. U., Bjerg, M., Ulaganathan, N. & Holm, R., Oct 2017, In: Physiological Reports. 5, 19, p. 14 e13467.

Glutamate Transporters in the Blood-Brain Barrier

Helms, H. C. C., Nielsen, C. U., Waagepetersen, H. S. & Brodin, B., 23. Jul 2017, *Glial Amino Acid Transporters*. Ortega, A. & Schousboe, A. (eds.). 1 ed. Springer, p. 297-314 (Advances in Neurobiology; No. 1, Vol. 16).

Characterization of the L-glutamate clearance pathways across the blood-brain barrier and the effect of astrocytes in an in vitro blood-brain barrier model

Helms, H. C. C., Aldana, B. I., Groth, S., Jensen, M. M., Waagepetersen, H. S., Nielsen, C. U. & Brodin, B., 2017, In: Journal of Cerebral Blood Flow and Metabolism. 37, 12, p. 3744-3758

SGLT1-mediated transport in Caco-2 cells is highly dependent on cell bank origin

Steffansen, B., Pedersen, M., Laghmoch, A. M. & Nielsen, C. U., 2017, In: Journal of Pharmaceutical Sciences. 106, 9, p. 2664-2670

Transport and metabolism of l-glutamate in brain capillary endothelial cells and astrocytes

Helms, H. C., Waagepetersen, H. S., Nielsen, C. U. & Brodin, B., 2017, In: Fluids and Barriers of the CNS. 14, Suppl. 2, 1 p., A21.

Polysorbate 20 increases oral absorption of digoxin in wild-type Sprague Dawley rats, but not in mdr1a(-/-) Sprague Dawley rats

Nielsen, C. U., Abdulhussein, A. A., Colak, D. & Holm, R., 20. Nov 2016, In: International Journal of Pharmaceutics. 513, 1-2, p. 78-87

Tween 20 increases intestinal transport of doxorubicin in vitro but not in vivo

Al-Sharaf, A., Holm, R. & Nielsen, C. U., 10. Feb 2016, In: International Journal of Pharmaceutics. 498, 1-2, p. 66-69

Interaction of GABA-mimetics with the taurine transporter (TauT, Slc6a6) in hyperosmotic treated caco-2, LLC-PK1 and rat renal SKPT cells

Rasmussen, R. N., Lagunas, C., Plum, J. M., Holm, R. & Nielsen, C. U., 20. Jan 2016, In: European Journal of Pharmaceutical Sciences. 82, p. 138-146

17- β -estradiol and ethinyl-estradiol inhibit PAT1-mediated taurine transport in Caco-2 cells, but doesn't alter the pharmacokinetic profile in vivo

Bjerg, M., Ulaganathan, N., Holm, R. & Nielsen, C. U., 2016.

A Transporter of Ibuprofen is Upregulated in MDCK I cells under Hyperosmotic Culture Conditions

Nielsen, C. U., Rasmussen, R. N., Mo, J., Noori, B., Lagunas, C., Holm, R. & Nøhr, M. K., 2016, In: *Molecular Pharmaceutics*. 13, 9, p. 3119-3129

Application of Cell Culture and Tissue Models for Assessing Drug Transport

Nielsen, C. U. & Brodin, B., 2016, *Analytical Techniques in the Pharmaceutical Sciences*. Müllertz, A., Perrie, Y. & Rades, T. (eds.). New York: Springer, p. 791-822 (Advances in Delivery Science and Technology).

Hyperosmolality regulates transporters in renal MDCK I cells

Rasmussen, R. N., Vielsted Christensen, K., Holm, R. & Nielsen, C. U., 2016.

Ibuprofen transport in renal cell cultures: Characterization of an ibuprofen transporter upregulated by hyperosmolality

Rasmussen, R. N., Holm, R., Vielsted Christensen, K. & Nielsen, C. U., 2016, In: *MedChemComm*. 7, 10, p. 1916-1924

PAT1 contributes to the absorption of taurine in vivo

Ulaganathan, N., Bjerg, M., Holm, R. & Nielsen, C. U., 2016.

Tween 20 increase absorptive digoxin transport in MDCKII-MDR1 cells

Abdulhussein, A. A., H. Ali, F., El Khatib, M., Holm, R., Steffansen, B. & Nielsen, C. U., 2016.

Is oral absorption of vigabatrin carrier-mediated?

Nøhr, M. K., Juul, R. V., Thale, Z. I., Holm, R., Kreilgaard, M. & Nielsen, C. U., 10. Mar 2015, In: *European Journal of Pharmaceutical Sciences*. 69, p. 10-18

Estradiol and ethinyl-estradiol decrease proline uptake and transport in intestinal Caco-2 cells

Nielsen, C. U., Kaestel, T., Mueller, S. & Nohr, M. K., 2015, In: *Amino Acids*. 47, 8, p. 1617 1 p.

In vivo and In vitro Evaluations of Intestinal Gabapentin Absorption: Effect of Dose and Inhibitors on Carrier-Mediated Transport

Larsen, M. S., Frølund, S., Nøhr, M. K., Nielsen, C. U., Garmer, M., Kreilgaard, M. & Holm, R., 2015, In: *Pharmaceutical Research*. 32, 3, p. 898-909

The anti-epileptic drug substance vigabatrin inhibits transport via the taurine transporter (TauT, SLC6A6) in SKPT cells

Rasmussen, R., Lagunas, C. & Nielsen, C. U., 2015, In: *Amino Acids*. 47, 8, p. 1618-1619 1 p.

Efflux transporter expression in a tight in vitro model of the blood brain barrier

Helms, H. C. C., Hersom, M. N. S., Kuhlmann, L. B., Badolo, L., Nielsen, C. U. & Brodin, B., 10. Dec 2014. 1 p.

Transport pathways mediating blood-to-brain L-glutamate efflux

Helms, H. C. C., Nielsen, C. U., Waagepetersen, H. S. & Brodin, B., 10. Dec 2014. 1 p.

Glutamate Efflux at the Blood-Brain Barrier: Cellular Mechanisms and Potential Clinical Relevance

Cederberg-Helms, H. C., Uhd-Nielsen, C. & Brodin, B., 15. Nov 2014, In: *Archives of Medical Research*. 45, 8, p. 639-645 7 p.

A Tight Blood-Brain Barrier Model Displays Brain-to-Blood Efflux of Substrates for the ABC-Transporters, P-gp, BCRP and MRP-1

Helms, H. C. C., Hersom, M. N. S., Kuhlmann, L. B., Badolo, L., Nielsen, C. U. & Brodin, B., 11. Sep 2014. 1 p.

IN VITRO MEMBRANE PERMEATION STUDIES AND IN VIVO ANTINOCICEPTION OF GLYCOSYLATED Dmt1-DALDA ANALOGUES

Betti, C., Novoa, A., Tömböly, C., Nielsen, C. U., Helms, H. C. C., Lesniak, A., Kleczkowska, P., Chung, N. N., Chung, N. N., Lipkowski, A. W., Brodin, B., Tourwé, D., Schiller, P. W. & Ballet, S., 31. Aug 2014. 1 p.

Pharmacokinetic aspects of the anti-epileptic drug substance vigabatrin: focus on transporter interactions

Nøhr, M. K., Frølund, S., Holm, R. & Nielsen, C. U., Aug 2014, In: Therapeutic Delivery. 5, 8, p. 927-942

The anti-epileptic drug substance vigabatrin inhibits taurine transport in intestinal and renal cell culture models

Plum, J., Nøhr, M. K., Hansen, S. H., Holm, R. & Nielsen, C. U., 22. Jul 2014, In: International Journal of Pharmaceutics. 473, 1-2, p. 395-397

An Electrically Tight In Vitro Blood-Brain Barrier Model Displays Net Brain-to-Blood Efflux of Substrates for the ABC Transporters, P-gp, Bcrp and Mrp-1

Helms, H. C., Hersom, M., Kuhlmann, L. B., Badolo, L., Nielsen, C. U. & Brodin, B., 17. Jun 2014, In: A A P S Journal. 16, 5, p. 1046-1055 10 p.

In Vitro Membrane Permeation Studies and in Vivo Antinociception of Glycosylated Dmt¹-DALDA Analogues

Ballet, S., Betti, C., Novoa, A., Tömböly, C., Nielsen, C. U., Helms, H. C., Lesniak, A., Kleczkowska, P., Chung, N. N., Lipkowski, A. W., Brodin, B., Tourwé, D. & Schiller, P. W., 10. Apr 2014, In: A C S Medicinal Chemistry Letters. 5, 4, p. 352-357

Design of prodrugs targeting the intestinal di/tri-peptide transporter hPEPT1 (SLC15A1)

Omkvist, D. H., Nielsen, C. U., Steffansen, B., Larsen, S. B., Olsen, L., Jørgensen, F. S. & Brodin, B., 4. Apr 2014. 1 p.

Intestinal absorption of the antiepileptic drug substance vigabatrin is altered by infant formula in vitro and in vivo

Nøhr, M. K., Thale, Z. I., Brodin, B., Hansen, S. H., Holm, R. & Nielsen, C. U., Apr 2014, In: Pharmacology Research & Perspectives. 2, 2, e00036.

Intestinal absorption of the antiepileptic drug substance vigabatrin in Göttingen mini-pigs is unaffected by co-administration of amino acids

Nøhr, M. K., Holm, R., Thale, Z. I. & Nielsen, C. U., 5. Mar 2014, In: International Journal of Pharmaceutics. 466, 1-2, p. 18-20

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

Nøhr, M. K., Hansen, S. H., Brodin, B., Holm, R. & Nielsen, C. U., 23. Jan 2014, In: European Journal of Pharmaceutical Sciences. 51, 1, p. 1-10

PAT1 (SLC36A1) shows nuclear localization and affects growth of smooth muscle cells from rats

Jensen, A., Figueiredo-Larsen, E. M., Holm, R., Broberg, M. L., Brodin, B. & Nielsen, C. U., Jan 2014, In: A J P: Endocrinology and Metabolism (Online). 306, 1, p. E65-E74

IN VITRO MEMBRANE PERMEATION STUDIES AND IN VIVO ANTINOCICEPTION OF GLYCOSYLATED Dmt1-DALDA ANALOGUES

Betti, C., Novoa, A., Tömböly, C., Nielsen, C. U., Helms, H. C. C., Lesniak, A., Kleczkowska, P., Chung, N. N., Chung, N. N. & Lipkowski, A. W., 2014, In: 33 European Peptide Society Symposium.

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

Nielsen, C. U., Frølund, S. B., Abdulhadi, S., Sari, H., Langthaler, L., Nøhr, M. K., Kall, M. A., Brodin, B. & Holm, R., Nov 2013, In: British Journal of Pharmacology. 170, 5, p. 1041-1052

Basolateral glycy sarcosine (Gly-Sar) transport in Caco-2 cell monolayers is pH dependent

Berthelsen, R., Nielsen, C. U. & Brodin, B., Jul 2013, In: Journal of Pharmacy and Pharmacology. 65, 7, p. 970-9 10 p.

Vigabatrin absorption is mediated via the proton-coupled amino acid transporter PAT1 – in vitro and in vivo
Nøhr, M. K., Juul, R. V., Hansen, S. H., Brodin, B., Holm, R., Kreilgaard, M. & Nielsen, C. U., 24. Jun 2013.

PAT1-inhibitors reduce oral absorption rate of vigabatrin in rats: pharmacokinetic model supports the role of proton-coupled amino acid transporter (PAT1) in vigabatrin absorption
Juul, R. V., Nøhr, M. K., Nielsen, C. U., Holm, R. & Kreilgaard, M., 12. Jun 2013.

Excitatory amino acid transporter-1 (EAAT1) is the main transporter responsible for abluminal uptake of L-glutamate in bovine brain endothelial cells
Helms, H. C. C., Groth, S., Mikél, M., Waagepetersen, H. S., Nielsen, C. U. & Brodin, B., 27. May 2013.

Cellemodel af blodhjernebarrieren kan mindske brugen af forsøgsdyr
Brodin, B., Helms, H. C. C., Hersom, M. N. S., Nielsen, C. U. & Waagepetersen, H. S., 2013, In: Lægemedelforskning. 2013, p. 47-49 3 p.

Current status of rational design of prodrugs targeting the intestinal di/tri-peptide transporter hPEPT1 (SLC15A1)
Saaby, L., Nielsen, C. U., Steffansen, B., Larsen, SB. & Brodin, B., 2013, In: Journal of Drug Delivery Science and Technology. 23, 4, p. 307-314

Membrane Transporters in ADME

Steffansen, B., Nielsen, C. U. & Brodin, B., 2013, *Transporters in Drug Development: Discovery, Optimization, Clinical Study and Regulation*. Sugiyama, Y. & Steffansen, B. (eds.). Springer Science+Business Media, p. 1-22 (AAPS Advances in the Pharmaceutical Sciences Series, Vol. 7).

Potential involvement of the proton-coupled amino acid transporter PAT1 (SLC36A1) in the delivery of pharmaceutical agents
Frølund, S. B., Nøhr, M. K., Holm, R., Brodin, B. & Nielsen, C. U., 2013, In: Journal of Drug Delivery Science and Technology. 23, 4, p. 293-306

Identification and Characterization of a Novel Nontranslated Sequence Variant of the Human Intestinal Di-/Tripeptide Transporter, hPEPT1
Søndergaard, H. B., Nielsen, C. U. & Brodin, B., 31. Dec 2012, In: International Journal of Peptides. 2012, 2012, 7 p., 743472.

The proton-coupled amino acid transporter hPAT1 is the main transporter involved in vigabatrin uptake in intestinal Caco-2 cells
Nøhr, M. K., Hansen, S. H., Brodin, B., Holm, R. & Nielsen, C. U., 30. Nov 2012.

In vitro evidence for the brain glutamate efflux hypothesis: brain endothelial cells co-cultured with astrocytes display a polarized brain-to-blood transport of glutamate
Helms, H. C. C., Madelung, R., Groth, S., Waagepetersen, H. S., Nielsen, C. U. & Brodin, B., 13. Sep 2012. 1 p.

Carrier-mediated γ -aminobutyric acid transport across the basolateral membrane of human intestinal Caco-2 cell monolayers
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Press/Media

- Min computer er på stoffer
Carsten Uhd Nielsen
13/04/2018
1 Media contribution

- Min computer er på stoffer
Carsten Uhd Nielsen
13/04/2018
1 Media contribution

"De andre nominerede er meget dygtige, så det var vildt at vinde"
Carsten Uhd Nielsen
19/09/2018
1 Media contribution

Årets bedste farmaci-speciale
Carsten Uhd Nielsen
03/08/2018
1 Media contribution

Et særdeles konkurrencepræget videnskabeligt miljø
Carsten Uhd Nielsen
22/09/2021
1 Media contribution

Hun skal tale på TEDxOdense: - Min computer er på stoffer
Carsten Uhd Nielsen
13/04/2018
1 Media contribution

Projects

Carlsbergfondet - Profiling of drug candidates and materials in biological systems
Nielsen, C. U.
01/01/2021 → 31/12/2025

Nordic POP – Patient oriented projects
Rantanen, J. T., Brandl, M., Bauer-Brandl, A., Nielsen, C. U. & Stein, P. C.
01/01/2018 → 31/12/2023