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## Employment

**Department of Physics, Chemistry and Pharmacy**  
SDU  
Odense M  
1. Mar 2021 → present

### Professor

Chemistry and Pharmacy  
SDU  
1. Mar 2021 → 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:

2021-: Vice-Chairman of the censor corps for Pharmaceutical educations in Denmark.

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 censor 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: 14 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

May Accounting and Economy Niels Brock Business College, Copenhagen, Denmark

1997

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

May Guidelines for working with laboratory animals SmithKline 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 targets Ph.D. Course, The Royal Danish School of Pharmacy, Copenhagen, Denmark  
1999

January Teaching and learning Ph.D. Course, Gilleleje, Denmark.

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

June/July ULLA Summerschool ULLA – 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, Seon, 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

### **Combinational inhibition of P-Glycoprotein-mediated etoposide transport by zosuquidar and polysorbate 20**

Nielsen, R. B., Holm, R., Pijpers, I., Snoeys, J., Nielsen, U. G. & Nielsen, C. U., Jan 2023, In: *Pharmaceutics*. 283.

### **In vitro and ex vivo evaluation of bi-layered effervescent microenvironmental pH modifying buccal films with saquinavir**

He, S., Nielsen, C. U., Mu, H. & Jacobsen, J., Dec 2022, In: *Journal of Drug Delivery Science and Technology*. 78

### **SNAT2 is responsible for hyperosmotic induced sarcosine and glycine uptake in human prostate PC-3 cells**

Nielsen, C. U., Krog, N. F., Sjekirica, I., Nielsen, S. S. & Pedersen, M. L., Dec 2022, In: *Pflügers Archiv - European Journal of Physiology*. 474, 12, p. 1249-1262

### **P-glycoprotein-mediated transport in a mucus-supplemented Caco-2 cell model in the presence of different surfactants**

Jakobsen, S., Gaenelle Gé, L., Pedersen, M., Griffin, B. T., Holm, R. & Uhd Nielsen, C., 25. Aug 2022, In: *International Journal of Pharmaceutics*. 624, 121885.

### **Mechanism behind polysorbates' inhibitory effect on P-glycoprotein**

Moesgaard, L., Reinholdt, P., Nielsen, C. U. & Kongsted, J., 4. Jul 2022, In: *Molecular Pharmaceutics*. 19, 7, p. 2248-2253

### **Phloretin inhibits glucose transport and reduces inflammation in human retinal pigment epithelial cells**

Hytti, M., Ruuth, J., Kanerva, I., Bhattarai, N., Pedersen, M. L., Nielsen, C. U. & Kauppinen, A., 30. Jun 2022, (E-pub ahead of print) In: *Molecular and Cellular Biochemistry*.

### **Molecular networks and macromolecular molar mass distributions for preliminary characterization of danish craft beers**

Nielsen, M. M. K., Hughes, S. S., Kuntsche, J., Malmendal, A., Jenssen, H., Nielsen, C. U. & Prabhala, B. K., Jun 2022, In: *Beverages*. 8, 2, 35.

**BeerMIMS: Exploring the use of membrane-inlet mass spectrometry (MIMS) coupled to KNIME for the characterization of danish beers**

Hughes, S. S., Hughes, M. M. K., Jonsbo, R. V., Nielsen, C. U., Lauritsen, F. R. & Prabhala, B. K., Dec 2021, In: European Journal of Mass Spectrometry. 27, 6, p. 266-271

**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.

**Corrigendum to 'Is Oral Absorption of Vigabatrin Carrier-mediated?' [European Journal of Pharmaceutical Sciences 69 (2015) 10-18]**

Nøhr, M. K., Juul, R. V., Thale, Z. I., Holm, R., Kreilgaard, M. & Nielsen, C. U., 1. Oct 2021, In: European journal of pharmaceutical sciences : official journal of the European Federation for Pharmaceutical Sciences. 165, p. 105927

**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- $\alpha$ -ethinyl-estradiol and 17- $\beta$ -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., Frette, 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- $\beta$ -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 hyperosmolarity**  
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., Klecskowska, 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 Dmt<sup>1</sup>-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: American Journal of Physiology: Endocrinology and Metabolism. 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

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## Press/Media

**- Min computer er på stoffer**

Carsten Uhd Nielsen  
13/04/2018  
1 Media contribution

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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**

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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.  
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**Uddannelses- og forskningsministeriet - FTP - FP1 - Rational search for inhibitors of Amino Acid Transporter: Implications for targeting transporters as prostate cancer treatment**

Nielsen, C. U.  
01/07/2022 → 31/07/2025