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Research Area

The research conducted in the group of Henrik Dimke can be divided into two lines. Focus is directed towards:

- 1) Elucidating the regulatory mechanisms involved in maintaining mineral balance (Calcium, Magnesium, and Phosphate) via trans- and paracellular pathways in kidney and intestine. In particular, we aim to understand the molecular regulation of divalent cation transport proteins such as the epithelial channels TRPV5 and TRPM6, which play key roles in renal Ca²⁺ and Mg²⁺ transport as well as the paracellular pore forming claudins. In addition, focus is directed towards understanding the role of the calcium sensing receptor and its involvement in renal calcium transport and kidney stone formation.
- 2) Moreover, additional studies are focusing on understanding the role of the endothelium in renal physiology and various forms of kidney disease.

Methods and Techniques

To elucidate the regulatory mechanisms involved in maintaining mineral balance, with special focus on the transport of the divalent cations calcium and magnesium in intestine and kidney, we have set up several approaches to study these specific areas utilizing various complex targeted transgenic strategies, histological and molecular biological techniques as well as human kidney isolates. In general, all studies aim to use whole-animal models to understand the often-complex relationship between structure and function of the kidney, intestine and bone as well as signaling cascades and hormonal regulatory systems functioning between cells and organs.

CV

Henrik Dimke is Professor of Translational Kidney Physiology. He is a molecular biologist with a M.Sc from Aarhus University and a PhD from Radboud University Nijmegen in the Netherlands. He has worked within the field of physiology for more than 15 . The group of Associate Professor Henrik Dimke is part of the Epithelial Transport Section at the Cardiovascular and Renal Research unit, situated in the Department of Molecular Medicine at the University of Southern Denmark. In addition, Henrik Dimke is affiliated with the Department of Nephrology, at the Odense University Hospital. Henrik Dimke has holds support from the Independent Research Fund Denmark, in the form of Research Project 1 and Sapere Aude grants. In addition, the laboratory of H. Dimke has received funding from Fabrikant Vilhelm Pedersen og Hustrus Mindelegat, the Novo Nordisk Foundation, the Carlsberg Foundation, the A.P. Møller Foundation, the Beckett Foundation and the Lundbeck Foundation.

Follow Henrik Dimke on twitter [@h_dimke](https://twitter.com/h_dimke) and connect with Henrik Dimke on linked-in

Teaching portfolio

Formel education:

2016: Completed lecturer training program at SDU.

Experience with teaching, guidance and exams:

-Henrik Dimke has been teaching since 2008. Focus has mainly been directed towards physiology teaching of medical and biomechanical students (lectures and class hours as well as exercises) and related exams.

Education administrative tasks:

- Course director for module B8 (since 2016)

Specific classes taught at SDU since 2014:

Medicine, Module B8: Homeostasis

- Acid Base Physiology

- Renal Clearance

- Diuretics

- Regulatory function of the kidneys

Medicine, Module B7: Reproduction and Pharmacodynamics

- Calcium and Phosphate Balance

- Female Reproduction

- Male Reproduction

SU502 biomedicine

- Acid Base Physiology

Methods, materials and tools:

-Lectures (PowerPoint, whiteboard), team teaching (whiteboard), responsible for group teaching (physiology-exercise).

Educational development:

-Lecturer training program at SDU (2016)

educational awards:

-Department of Molecular Medicine Teaching Award (2017)

Methods, materials and tools: Lectures (PowerPoint, whiteboard), Classroom teaching (whiteboard), responsible for physiology exercise module B8

Publikationer

New insights into renal calcium-sensing receptor activation

Dimke, H., 1. jul. 2024, I: *Current Opinion in Nephrology & Hypertension*. 33, 4, s. 433-440

Molecular mechanisms of loop diuretics on renal calcium and magnesium transport

Alexander, R. T. & Dimke, H., maj 2024, I: *Acta Physiologica*. 240, 5, e14138.

Nitric oxide, endothelium-derived hyperpolarizing factor, and smooth muscle-dependent mechanisms contribute to magnesium-dependent vascular relaxation in mouse arteries

Kudryavtseva, O., Lyngsø, K. S., Jensen, B. L. & Dimke, H., mar. 2024, I: *Acta Physiologica*. 240, 3, e14096.

Single cell-resolved study of advanced murine MASH reveals a homeostatic pericyte signaling module

Bendixen, S. M., Jakobsgaard, P. R., Hansen, D., Hejn, K. H., Terkelsen, M. K., Bjerre, F. A., Thulesen, A. P., Eriksen, N. G., Hallenborg, P., Geng, Y., Dam, T. V., Larsen, F. T., Wernberg, C. W., Vijayathurai, J., Scott, E. A. H., Marcher, A. B., Detlefsen, S., Grøntved, L., Dimke, H. & Berdeaux, R. & 6 flere, de Aguiar Vallim, T. Q., Olinga, P., Lauridsen, M. M., Krag, A., Blagoev, B. & Ravnskjaer, K., mar. 2024, I: *Journal of Hepatology*. 80, 3, s. 467-481

Kidney membrane proteins and epithelial transport

Dimke, H., nov. 2023, I: *Acta Physiologica*. 239, 3, e14052.

Increased Slc34a2 expression and paracellular phosphate permeability contribute to high intestinal phosphate absorption in young mice

MacDonald, T., Beggs, M. R., O'Neill, D., Kozuka, K., Dimke, H. & Alexander, R. T., okt. 2023, I: *Acta Physiologica*. 239, 2, 13 s., e14029.

Claudin-19 localizes to the thick ascending limb where its expression is required for junctional claudin-16 localization

Dimke, H., Griveau, C., Ling, W.-M. E., Brideau, G., Cheval, L., Muthan, P., Müller, D., Al-Shebel, A., Houillier, P. & Prot-Bertoye, C., aug. 2023, I: *Annals of the New York Academy of Sciences*. 1526, 1, s. 126-137

Maternal Epidermal Growth Factor Promotes Neonatal Claudin-2 Dependent Increases in Small Intestinal Calcium Permeability

Beggs, M. R., Young, K., Plain, A., O'Neill, D. D., Raza, A., Flockerzi, V., Dimke, H. & Alexander, R. T., 27. jun. 2023, I: *Function*. 4, 5, s. zqad033 13 s.

Effects of parathyroid hormone on renal tubular calcium and phosphate handling

Alexander, R. T. & Dimke, H., maj 2023, I: *Acta Physiologica*. 238, 1, 16 s., e13959.

Introducing a special series: Membrane proteins, epithelial transport, and kidney physiology

Dimke, H., maj 2023, I: *Acta Physiologica*. 238, 1, 2 s., e13958.

Molecular mechanisms underlying paracellular calcium and magnesium reabsorption in the proximal tubule and thick ascending limb

Alexander, R. T. & Dimke, H., dec. 2022, I: *Annals of the New York Academy of Sciences*. 1518, 1, s. 69-83

Detection of DZIP1L mutations by whole-exome sequencing in consanguineous families with polycystic kidney disease

Hertz, J. M., Svenningsen, P., Dimke, H., Engelund, M. B., Nørgaard, H., Hansen, A., Marcussen, N., Thiesson, H. C., Bergmann, C. & Larsen, M. J., nov. 2022, I: *Pediatric Nephrology*. 37, 11, s. 2657-2665

Sorting Out the Rapid Renal Response to an Oral Phosphate load

Dimke, H., jun. 2022, I: Acta Physiologica. 235, 2, 3 s., e13824.

The contribution of regulated colonic calcium absorption to the maintenance of calcium homeostasis

Beggs, M. R., Bhullar, H., Dimke, H. & Alexander, R. T., jun. 2022, I: Journal of Steroid Biochemistry and Molecular Biology. 220, 106098.

Gentamicin induces calciuresis by blocking TRPV5

van Megen, W. H., Beggs, M. R., An, S. W., Ferreira, P. G., Lee, J. J., Wolf, M. T., Alexander, R. T. & Dimke, H., 1. maj 2022, I: The FASEB Journal. 36

Differential parathyroid and kidney Ca²⁺-sensing receptor activation in autosomal dominant hypocalcemia 1

van Megen, W. H., Tan, R. S. G., Alexander, R. T. & Dimke, H., apr. 2022, I: EBioMedicine. 78, 17 s., 103947.

Gentamicin Inhibits Ca²⁺ Channel TRPV5 and Induces Calciuresis Independent of the Calcium-Sensing Receptor-Claudin-14 Pathway

van Megen, W., Beggs, M., An, S.-W., Ferreira, P., Lee, J., Wolf, M., Alexander, R. T. & Dimke, H., mar. 2022, I: Journal of the American Society of Nephrology. 33, 3, s. 547-564

Endothelial Mineralocorticoid Receptor Ablation Confers Protection Towards Endothelial Dysfunction in Experimental Diabetes in Mice

Lyngsø, K. S., Jensen, B. L., Hansen, P. B. L. & Dimke, H., feb. 2022, I: Acta Physiologica. 234, 2, 11 s., e13731.

Mechanisms Underlying Calcium Nephrolithiasis

Alexander, R. T., Fuster, D. G. & Dimke, H., feb. 2022, I: Annual Review of Physiology. 84, s. 559-583

A new transgene mouse model using an extravesicular EGFP tag enables affinity isolation of cell-specific extracellular vesicles

Nørgård, M. Ø., Steffensen, L. B., Hansen, D. R., Füchtbauer, E.-M., Engelund, M. B., Dimke, H., Andersen, D. C. & Svenningsen, P., 11. jan. 2022, I: Scientific Reports. 12, 13 s., 496.

Risk of Urolithiasis in Patients with Inflammatory Bowel Disease: A Nationwide Danish Cohort Study 1977-2018

Dimke, H., Winther-Jensen, M., Allin, K. H., Lund, L. & Jess, T., dec. 2021, I: Clinical Gastroenterology and Hepatology. 19, 12, s. 2532-2540.e2

Claudin-2 and claudin-12 form independent, complementary pores required to maintain calcium homeostasis

Beggs, M. R., Young, K., Pan, W., O'Neill, D. D., Saurette, M., Plain, A., Rievaj, J., Doschak, M. R., Cordat, E., Dimke, H. & Alexander, R. T., 30. nov. 2021, I: PNAS. 118, 48, 7 s., e2111247118.

The role of calcium-sensing receptor signaling in regulating transepithelial calcium transport

Tan, R. S. G., Lee, C. H. L., Dimke, H. & Todd Alexander, R., 1. nov. 2021, I: Experimental Biology and Medicine. 246, 22, s. 2407-2419

Activation of the calcium sensing receptor increases claudin-14 expression via a PLC -p38-Sp1 pathway

Lee, J. J., Alzamil, J., Rehman, S., Pan, W., Dimke, H. & Alexander, R. T., nov. 2021, I: The FASEB Journal. 35, 11, 13 s., e21982.

Differential localization patterns of Claudin 10, 16 and 19 in human, mouse, and rat renal tubular epithelia

Prot-Bertoye, C., Griveau, C., Skjødt, K., Cheval, L., Brideau, G., Lievre, L., Ferriere, E., Arbaretaz, F., Garbin, K., Zamani, R., Marcussen, N., Figueres, L., Breiderhoff, T., Müller, D., Bruneval, P., Houillier, P. & Dimke, H., 1. aug. 2021, I: American Journal of Physiology: Renal Physiology. 321, 2, s. F207-F224

High dietary potassium causes ubiquitin-dependent degradation of the kidney sodium-chloride cotransporter

Kortenoeven, M. L. A., Esteva-Font, C., Dimke, H., Poulsen, S. B., Murali, S. K. & Fenton, R. A., aug. 2021, I: The Journal of biological chemistry. 297, 2, 14 s., 100915.

17 forskere: Udflytning splitter selve universitetsuddannelsernes DNA

Wewer Albrechtsen, N. J., Bjørk, R., Dalsgaard, P., Damgaard, R. B., Dimke, H., Hansen, N. C., Jauffred, L., Jønsson, K. A., Kropp, K., Laustsen, A. H., Levisen, C., Jensen, L. K., Møller, N. M., Nielsen, M. W., Andersen, P. E., Sørensen, T. J. & Vallgård, K. A. A., 15. jun. 2021, I: Altinget.

Politikerens angreb på forskningsfriheden er farlige for vores demokrati

Det Unge Akademi & Dimke, H. (Medlem af forfattergruppering), 7. jun. 2021, I: Berlingske Tidende.

Renal claudin-14 expression is not required for regulating Mg 2+ balance in mice

Ferreira, P. G., van Megen, W. H., Tan, R. S. G., Lee, C. H. L., Svenningsen, P., Alexander, R. T. & Dimke, H., 3. maj 2021, I: American Journal of Physiology: Renal Physiology. 320, 5, s. F897-F907

Single cell transcriptional and chromatin accessibility profiling redefine cellular heterogeneity in the adult human kidney

Muto, Y., Wilson, P. C., Ledru, N., Wu, H., Dimke, H., Waikar, S. S. & Humphreys, B. D., 13. apr. 2021, I: Nature Communications. 12, 17 s., 2190.

Unge forskere: Fondsmidler trækker forskningen skæv

Rasmussen, B., Damgaard, R. B., Dalsgaard, P., Dimke, H., Jauffred, L., Jønsson, K. A., Kropp, K., Laustsen, A. H., Møller, N. M., Sørensen, T. J., Ellersgaard, C. H. & Vallgård, K. A. A., 23. mar. 2021

Unge forskere: Der er behov for en bedre model til at støtte coronaforsøkt forskning

Andersen, P. E., Bjørk, R., Kristensen, L. B., Dalsgaard, P., Dimke, H., Jauffred, L., Jønsson, K. A., Kropp, K., Laustsen, A. H., Møller, N. M., Nielsen, M. W., Rasmussen, L. V., Sørensen, T. J. & Vallgård, K. A. A., 16. mar. 2021

Phenol-chloroform-based RNA purification for detection of SARS-CoV-2 by RT-qPCR: Comparison with automated systems

Dimke, H., Larsen, S. L., Skov, M. N., Larsen, H., Hartmeyer, G. N. & Moeller, J. B., 24. feb. 2021, I: PLOS ONE. 16, 2, 6 s., e0247524.

Unge forskere: Flere øremærkede forskningsmidler truer fri forskning

Det Unge Akademi, Andersen, P. E., Bjørk, R., Dalsgaard, P., Damgaard, R. B., Dimke, H., Hansen, N. C., Jauffred, L., Jønsson, K. A., Kropp, K., Laustsen, A. H., Møller, N. M., Nielsen, M. W., Nielsen, T. K., Sørensen, T. J. & Vallgård, K., 11. feb. 2021

Localization and Regulation of Claudin-14 in Experimental Models of Hypercalcemia

Frische, S., Alexander, R. T., Ferreira, P., Tan, R., Wang, W., Svenningsen, P., Skjødt, K. & Dimke, H., 13. jan. 2021, I: American Journal of Physiology: Renal Physiology. 320, 1, s. F74-F86

Unge forskere: Sæt forskningen fri fra BNP-målsætningen i 2021

Det Unge Akademi, Andersen, P. E., Bjørk, R., Dalsgaard, P., Damgaard, R. B., Dimke, H., Hansen, N. C., Jauffred, L., Jønsson, K. A., Kropp, K., Laustsen, A. H., Møller, N. M., Nielsen, M. W., Nielsen, T. K., Sørensen, T. J. & Vallgård, K., 10. jan. 2021

Transcriptional dynamics of hepatic sinusoid-associated cells after liver injury

Terkelsen, M. K., Bendixen, S. M., Hansen, D., Scott, E. A. H., Moeller, A. F., Nielsen, R., Mandrup, S., Schlosser, A., Andersen, T. L., Sorensen, G. L., Krag, A., Natarajan, K. N., Detlefsen, S., Dimke, H. & Ravnkjaer, K., 20. dec. 2020, I: Hepatology. 72, 6, s. 2119-2133

Unge forskere: Der skal være klare rammer for koblingen mellem universiteter og erhvervsliv

Bjørk, R., Dalsgaard, P., Dimke, H., Jauffred, L., Kropp, K., Sørensen, T. J. & Sørensen, T. J., 8. dec. 2020, I: Altinget.

Unge forskere: Forskningsforliget udhuler midlerne til fri forskning

Bjørk, R., Dalsgaard, P., Dimke, H., Hansen, N. C., Jauffred, L., Kropp, K., Laustsen, A. H., Sørensen, T. J. & Vallgård, K. A. A., 17. nov. 2020, I: Altinget.

Unge forskere: Vi vil advare mod direkte politisk styring af forskningsfinansiering

Bjørk, R., Dalsgaard, P., Dimke, H., Jauffred, L., Laustsen, A. H., Pedersen, B. P., Sørensen, T. J. & Vallgård, K. A. A., 1. okt. 2020, I: Altinget.

Bekymrede forskere: Politisk styring af offentlige forskningsmidler må ikke underminere grundforskningen

Bjørk, R., Dalsgaard, P., Dimke, H., Jauffred, L., Kropp, K., Laustsen, A. H., Pedersen, B. P., Sørensen, T. J. & Vallgård, K. A. A., 30. sep. 2020, I: Sciencereport.dk.

Vedtag en hjælpepakke til yngre forskere

Dalsgaard, P., Dimke, H., Jauffred, L., Kropp, K., Laustsen, A. H., Pedersen, B. P., Suhr, C., Sørensen, T. J. & Vallgård, K., 15. sep. 2020, I: Politiken. s. 7

Nej, Ane Halsboe-Jørgensen, forskningsmidler skal ikke bruges på erhvervsstøtte

Bjørk, R., Dalsgaard, P., Dimke, H., Jauffred, L., Kropp, K., Laustsen, A. H., Pedersen, B. P., Sørensen, T. J. & Vallgård, K., 12. sep. 2020, I: Information.

Der er akut behov for en hjælpepakke til unge forskere

Dalsgaard, P., Dimke, H., Kropp, K., Pedersen, B. P., Sørensen, T. J. & Vallgård, K., 8. sep. 2020, I: Altinget.

Magnesium: et mirakel mineral?

Dimke, H., aug. 2020, *Tanker i Lockdown*. Andersen, C., Jauffred, L., Hougaard Laustsen, A., Levisen, C., Lomborg, S. & Pristed, B. B. (red.). Det Unge Akademi, s. 132-137

Unge forskere: Genåbn universiteterne nu

Bjørk, R., Dalsgaard, P., Dimke, H., Jauffred, L., Møller, N. M., Pedersen, B. P. & Sørensen, T. J., 20. maj 2020, I: Science Report.

Forskning må ikke forveksles med erhvervsstøtte

Bjørk, R., Dalsgaard, P., Dimke, H., Kropp, K., Laustsen, A. H., Pedersen, B. P., Sørensen, T. J. & Vallgård, K., 13. maj 2020, I: Science Report.

Unge forskere: Fri forskning er vigtigt – også i krisetider

Bjørk, R., Dalsgaard, P., Dimke, H., Jauffred, L., Møller, N. M., Niss, K., Pedersen, B. P., Sørensen, T. J. & Vallgård, K. A. A., 12. maj 2020, I: Altinget.

Inden næste epidemi

Bjørk, R., Dimke, H., Dalsgaard, P., Engberg-Pedersen, A., Jauffred, L., Kropp, K., Niss, K., Pedersen, B. P., Sørensen, T. J. & Vallgård, K., 1. maj 2020, I: Weekendavisen. s. 13

G protein-coupled pH-sensing receptor OGR1 and metabolic acidosis-induced hypercalciuria

Dimke, H., maj 2020, I: *Kidney International*. 97, 5, s. 852-854

Claudin-12 Knockout Mice Demonstrate Reduced Proximal Tubule Calcium Permeability

Plain, A., Pan, W., O'Neill, D., Ure, M., Beggs, M. R., Farhan, M., Dimke, H., Cordat, E. & Alexander, R. T., 18. mar. 2020, I: *International Journal of Molecular Sciences*. 21, 6, 18 s., 2074.

Unge forskere: Ph.d.-studerende skal ikke udnyttes som billig arbejdskraft

Bjørk, R., Dalsgaard, P., Danbolt, M., Dimke, H., Jauffred, L., Niss, K., Pedersen, B. P., Sørensen, T. J. & Vallgård, K., 30. jan. 2020, I: Altinget.

Vi har ikke råd til at tabe en generation af unge forskere

Dalsgaard, P., Dimke, H., Kropp, K., Niss, K., Pedersen, B. P., Rasmussen, L. V., Sørensen, T. J., Ulstrup, S. & Vallgård, K., 30. jan. 2020, I: Berlingske Tidende.

Unge forskere: Høj risikovillighed i forskningsfinansieringen er nødvendigt

Björk, R., Dalsgaard, P., Dimke, H., Engberg-Pedersen, A., Jauffred, L., Kropp, K., Niss, K., Pedersen, B. P. & Sørensen, T. J., 16. jan. 2020, I: Altinget.

Ny stillingsstruktur på universiteterne har flere faldgruber

Det Unge Akademi, 13. jan. 2020, I: Altinget.

Proteolytic activation of the epithelial sodium channel: role of pro-protein convertases and prostasin

Svenningsen, P., Granhøj, J. & Dimke, H., 2020, I: The FASEB Journal. 34, Supplement 1, s. 1-1 1 s.

Nephrotic syndrome is associated with increased plasma K^+ concentration, intestinal K^+ losses, and attenuated urinary K^+ excretion: a study in rats and humans

Ydegaard, R., Svenningsen, P., Bistrup, C., Andersen, R. F., Stubbe, J., Buhl, K. B., Marcussen, N., Hinrichs, G. R., Iraqi, H., Zamani, R., Dimke, H. & Jensen, B. L., 1. dec. 2019, I: American Journal of Physiology: Renal Physiology. 317, 6, s. F1549-F1562

The kidney anion exchanger 1 affects tight junction properties via claudin-4

Lashhab, R., Rumley, A. C., Arutyunov, D., Rizvi, M., You, C., Dimke, H., Touret, N., Zimmermann, R., Jung, M., Chen, X.-Z., Alexander, T. & Cordat, E., 1. dec. 2019, I: Scientific Reports. 9, 1, 16 s., 3099.

Skævvridningen af dansk forskningsfinansiering har negative konsekvenser

Det Unge Akademi, Videnskabernes Selskab & Dimke, H. (Medlem af forfattergruppering), 24. nov. 2019, I: Sciencereport.dk.

S-løftebrud er en katastrofe for universiteterne

Det Unge Akademi, Videnskabernes Selskab & Dimke, H. (Medlem af forfattergruppering), 21. nov. 2019, I: Altinget.

Universitetets rammer giver få muligheder for risikovillig forskning

Det Unge Akademi, Videnskabernes Selskab & Dimke, H. (Medlem af forfattergruppering), 21. nov. 2019, I: Altinget.

Forskere efterspørger små og mellemstore bevillinger

Christiansen, P. M., Dimke, H., Norn, M.-T., Wohler, J. & Zinner, N. T., 31. okt. 2019, I: Forskningspolitik.

Bacterial Peptide Display for the Selection of Novel Biotinylating Enzymes

Granhøj, J., Dimke, H. & Svenningsen, P., 3. okt. 2019, I: Journal of visualized experiments : JoVE. 2019, 152, 8 s., e60266.

In human nephrectomy specimens, the kidney level of tubular transport proteins does not correlate with their abundance in urinary extracellular vesicles

Sabaratnam, R., Geertsen, L., Skjødt, K., Højlund, K., Dimke, H., Lund, L. & Svenningsen, P., 1. sep. 2019, I: American Journal of Physiology: Renal Physiology. 317, 3, s. F560-F571

Most scientists prefer small and mid-sized research grants

Dimke, H., Norn, M. T., Christiansen, P. M., Wohler, J. & Zinner, N. T., aug. 2019, I: Nature Human Behavior. 3, 8, s. 765-767

Rapid Aldosterone-Mediated Signaling in the DCT Increases Activity of the Thiazide-Sensitive NaCl Cotransporter

Cheng, L., Poulsen, S. B., Wu, Q., Esteva-Font, C., Olesen, E. T. B., Peng, L., Olde, B., Leeb-Lundberg, L. M. F., Pisitkun, T., Rieg, T., Dimke, H. & Fenton, R. A., aug. 2019, I: Journal of the American Society of Nephrology. 30, 8, s. 1454-1470

Activation of the calcium sensing receptor attenuates TRPV6-dependent intestinal calcium absorption

Lee, J. J., Liu, X., O'Neil, D., Beggs, M. R., Weissgerber, P., Flockerzi, V., Chen, X.-Z., Dimke, H. & Alexander, R. T., 6. jun. 2019, I: JCI Insight. 4, 11, 14 s., e128013.

The Jejunum and Ileum Mediate Increased Calcium Absorption for Bone Mineralization During Postnatal Development via TRPV6 and Cav1.3 (OR26-07-19)

Beggs, M., Lee, J., Busch, K., Raza, A., Dimke, H., Weissgerber, P., Engel, J., Flockerzi, V. & Alexander, R. T., jun. 2019, I: Current Developments in Nutrition. 3, Supplement 1, s. 695 1 s.

Unge forskere kritiserer strategi: Pionercentre favoriserer få forskere

Bjork, R., Dalsgaard, P., Dimke, H., Møller, N. M., Niss, K., Panyella Pedersen, B. & Sørensen, T. J., 1. apr. 2019, I: Altinget.

A bacterial display system for effective selection of protein-biotin ligase BirA variants with novel peptide specificity

Granhøj, J., Dimke, H. & Svenningsen, P., 11. mar. 2019, I: Scientific Reports. 9, 1, 11 s., 4118.

"Hvis den private sektor virkelig mangler talent, så kom og hent det på universiteterne"

Bjork, R., Dalsgaard, P., Dimke, H., Panyella Pedersen, B., Ravnsbæk, D. B. & Sørensen, T. J., 25. feb. 2019, I: Altinget. 7 s.

Transcriptional regulation of Hepatic Stellate Cell activation in NASH

Marcher, A.-B., Bendixen, S. M., Terkelsen, M. K., Hohmann, S. S., Hansen, M. H., Larsen, B. D., Mandrup, S., Dimke, H., Detlefsen, S. & Ravnskjær, K., 20. feb. 2019, I: Scientific Reports. 9, 1, 55 s., 2324.

Stop besparelserne på forskning og uddannelse

Dimke, H. & Niss, K., 27. jan. 2019, I: Science Report.

TRPV6 and Cav1.3 Mediate Distal Small Intestine Calcium Absorption Before Weaning

Beggs, M. R., Lee, J. J., Busch, K., Raza, A., Dimke, H., Weissgerber, P., Engel, J., Flockerzi, V. & Alexander, R. T., 2019, I: Cellular and Molecular Gastroenterology and Hepatology. 8, 4, s. 625-642

Unge akademikere: Politiske prioriteringer udsulter grundforskningen

Bjork, R., Dalsgaard, P., Dimke, H., Engberg-Pedersen, A., Niss, K., Panyella Pedersen, B. & Sørensen, T. J., 18. dec. 2018, I: Altinget.

H⁺-ATPase B1 subunit localizes to thick ascending limb and distal convoluted tubule of rodent and human kidney

Frische, S., Chambrey, R., Trepiccione, F., Zamani, R., Marcussen, N., Alexander, R. T., Skjødt, K., Svenningsen, P. & Dimke, H., 1. sep. 2018, I: American Journal of Physiology: Renal Physiology. 315, 3, s. F429-F444

Hydronephrosis is associated with elevated plasmin in urine in pediatric patients and rats and changes in NCC and γ-ENaC abundance in rat kidney

Zachar, R., Al-Mashhadi, A., Dimke, H., Svenningsen, P., Jensen, B. L. & Carlström, M., 1. sep. 2018, I: American Journal of Physiology: Renal Physiology. 315, 3, s. F547-F557

Forskere foretrækker mellemstore bevillinger

Norn, M. T., Munk Christiansen, P., Dimke, H. & Zinner, N. T., 9. jun. 2018, I: Politiken.

Den ideelle forskningsbevilling: En spørgeskemaundersøgelse af forskeres ønsker til forskningsbevillinger og deres vurdering af muligheder for at få finansieret deres forskning

Wohlert, J., Norn, M. T., Grønvald Kristensen, V., Bisgaard, K., Dimke, H. & Zinner, N. T., 8. jun. 2018, Tænk tanken DEA, Danmarks Frie Forskningsfond og Det Unge Akademi. 36 s.

Axial and Cellular Heterogeneity in Electrolyte Transport Pathways Along the Thick Ascending Limb

Dimke, H. & Schnermann, J., maj 2018, I: *Acta Physiologica*. 223, 1, 17 s., e13057.

Skatteaftale er gift for forskning: Debat

Dalsgaard, P., Panyella Pedersen, B., Dimke, H., Møller, N. M., Normand, S., Bjørk, R., Bille, M. & Larsen, K. G., 2. mar. 2018, I: *Politiken*.

Endothelial mineralocorticoid receptor ablation does not alter blood pressure, kidney function or renal vessel contractility

Laursen, S. B., Finsen, S., Marcussen, N., Quaggin, S. E., Hansen, P. B. L. & Dimke, H., 1. feb. 2018, I: *PLOS ONE*. 13, 2, 20 s., e0193032.

Deficiency of Carbonic Anhydrase II Results in a Urinary Concentrating Defect

Krishnan, D., Pan, W., Beggs, M. R., Trepiccione, F., Chambrey, R., Eladari, D., Cordat, E., Dimke, H. & Alexander, R. T., 2018, I: *Frontiers in Physiology*. 8, 12 s., 1108.

Undervisere: Her er de fem største problemer med studenterevalueringer

Dalsgaard, P., Bille, M., Bjørk, R., Dalsgaard, S., Dimke, H., Gram-Skjoldager, K. & Zinner, N. T., 31. okt. 2017, I: *Altinget*.

Expression of transcellular and paracellular calcium and magnesium transport proteins in renal and intestinal epithelia during lactation

Beggs, M. R., Appel, I., Svenningsen, P., Skjødt, K., Alexander, T. R. & Dimke, H., 1. sep. 2017, I: *American Journal of Physiology: Renal Physiology*. 313, 3, s. F629-F640

Effect of Diuretics on Renal Tubular Transport of Calcium and Magnesium

Alexander, R. T. & Dimke, H., 1. jun. 2017, I: *American Journal of Physiology: Renal Physiology*. 312, 6, s. F998-F1015

A variant in a Cis-regulatory element enhances claudin-14 expression and is associated with pediatric-onset hypercalciuria and kidney stones

Ure, M. E., Heydari, E., Pan, W., Ramesh, A., Rehman, S., Morgan, C., Pinski, M., Erickson, R., Herrmann, J. M., Dimke, H., Cordat, E., Lemaire, M., Walter, M. & Alexander, R. T., jun. 2017, I: *Human Mutation*. 38, 6, s. 649-657

Effects of phospho- and calcitropic hormones on electrolyte transport in the proximal tubule: [version 1; referees: 2 approved]

Lee, J. J., Plain, A., Beggs, M. R., Dimke, H. & Alexander, R. T., 2017, I: *F1000Research*. 6, 14 s., 1797.

Acidosis and Urinary Calcium Excretion: Insights from Genetic Disorders

Alexander, R. T., Cordat, E., Chambrey, R., Dimke, H. & Eladari, D., dec. 2016, I: *Journal of the American Society of Nephrology*. 27, 12, s. 3511-3520

Untargeted metabolomics analysis of ABCC6-deficient mice discloses an altered metabolic liver profile

Rasmussen, M. R., Nielsen, K. L., Laursen, M. R., Nielsen, C. B., Svendsen, P., Dimke, H., Christensen, E. I., Johannsen, M. & Moestrup, S. K., 19. okt. 2016, I: *Journal of Proteome Research*. 15, 12, s. 4591-4600

Deletion of Endothelial Mineralocorticoid Receptors Confers Protection Towards Altered Vessel Contractility During Endothelial Dysfunction in Renal Vessels

Hansen, P. B. L., Laursen, S. B., Finsen, S. L. H., Quaggin, S. E. & Dimke, H., 6. jun. 2016.

Alternative splice variant of the thiazide-sensitive NaCl cotransporter: a novel player in renal salt handling

Tutakhel, O. A. Z., Jeleń, S., Valdez-Flores, M., Dimke, H., Piersma, S. R., Jimenez, C. R., Deinum, J., Lenders, J. W., Hoenderop, J. G. J. & Bindels, R. J. M., 1. feb. 2016, I: *American Journal of Physiology: Renal Physiology*. 310, 3, s. F204-F216

A single simple procedure for dewaxing, hydration and heat-induced epitope retrieval (HIER) for immunohistochemistry in formalin fixed paraffin-embedded tissue

Paulsen, I. M. S., Dimke, H. & Frische, S., 3. nov. 2015, I: *European Journal of Histochemistry*. 59, 4, s. 303-309 2532.

Ultrastructural and immunohistochemical localization of plasma membrane Ca²⁺-ATPase 4 in Ca²⁺-transporting epithelia

Alexander, R. T., Beggs, M. R., Zamani, R., Marcussen, N., Frische, S. & Dimke, H., 1. okt. 2015, I: *American Journal of Physiology: Renal Physiology*. 309, 7, s. F604-F616 ajprenal.00651.2014.

Crosstalk in glomerular injury and repair

Dimke, H., Maezawa, Y. & Quaggin, S. E., maj 2015, I: *Current Opinion in Nephrology & Hypertension*. 24, 3, s. 231–238

Tubulovascular cross-talk by vascular endothelial growth factor a maintains peritubular microvasculature in kidney

Dimke, H., Sparks, M. A., Thomson, B. R., Frische, S., Coffman, T. M. & Quaggin, S. E., maj 2015, I: *Journal of the American Society of Nephrology*. 26, 5, s. 1027-1038

Loss of the Podocyte-Expressed Transcription Factor Tcf21/Pod1 Results in Podocyte Differentiation Defects and FSGS

Maezawa, Y., Onay, T., Scott, R. P., Keir, L. S., Dimke, H., Li, C., Eremina, V., Maezawa, Y., Jeansson, M., Shan, J., Binnie, M., Lewin, M., Ghosh, A., Miner, J. H., Vainio, S. J. & Quaggin, S. E., 5. jun. 2014, I: *Journal of the American Society of Nephrology*. 25, 11, s. 2459-2470

Ankyrin-3 is a novel binding partner of the voltage-gated potassium channel Kv1.1 implicated in renal magnesium handling

San-Cristobal, P., Lainez, S., Dimke, H., de Graaf, M. J. J., Hoenderop, J. G. J. & Bindels, R. J. M., 2014, I: *Kidney International*. 85, 1, s. 94-102

Paracellular calcium transport across renal and intestinal epithelia

Alexander, R. T., Rievaj, J. & Dimke, H., 2014, I: *Biochemistry and Cell Biology*. 92, 6, s. 467-480

Proximal tubular NHEs: sodium, protons and calcium?

Alexander, R. T., Dimke, H. & Cordat, E., 1. aug. 2013, I: *American Journal of Physiology: Renal Physiology*. 305, 3, s. F229-F236

Evaluation of hypomagnesemia: lessons from disorders of tubular transport

Dimke, H., Monnens, L., Hoenderop, J. G. J. & Bindels, R. J. M., aug. 2013, I: *American Journal of Kidney Diseases*. 62, 2, s. 377-383 7 s.

Activation of the Ca(2+)-sensing receptor increases renal claudin-14 expression and urinary Ca(2+) excretion

Dimke, H., Desai, P., Borovac, J., Lau, A., Pan, W. & Alexander, R. T., 15. mar. 2013, I: *American Journal of Physiology: Renal Physiology*. 304, 6, s. F761-F769

Aquaporin Water Channels in Mammalian Kidney

Nielsen, S., Kwon, T.-H., Dimke, H., Skott, M. & Frøkiær, J., 1. jan. 2013, *Seldin and Geibisch's The Kidney*. Bind 1. s. 1405-1439 35 s.

Autosomal dominant hypercalciuria in a mouse model due to a mutation of the epithelial calcium channel, TRPV5

Loh, N. Y., Bentley, L., Dimke, H., Verkaart, S., Tamaro, P., Gorvin, C. M., Stechman, M. J., Ahmad, B. N., Hannan, F. M., Piret, S. E., Evans, H., Bellantuono, I., Hough, T. A., Fraser, W. D., Hoenderop, J. G. J., Ashcroft, F. M., Brown, S. D. M., Bindels, R. J. M., Cox, R. D. & Thakker, R. V., 2013, I: *PLOS ONE*. 8, 1, s. e55412

Tissue transglutaminase inhibits the TRPV5-dependent calcium transport in an N-glycosylation-dependent manner

Boros, S., Xi, Q., Dimke, H., van der Kemp, A. W., Tudpor, K., Verkaart, S., Lee, K. P., Bindels, R. J. & Hoenderop, J. G., 2012, I: *Cellular and Molecular Life Sciences*. 69, 6, s. 981-92

Exploring the intricate regulatory network controlling the thiazide-sensitive NaCl cotransporter (NCC)

Dimke, H., dec. 2011, I: *Pflügers Archiv - European Journal of Physiology*. 462, 6, s. 767-77

Opposing effects of NaCl restriction and carbohydrate loading on urine volume in diabetic rats
O'Neill, H. A., Kwon, T.-H., Ring, T., Dimke, H., Lebeck, J., Frøkiaer, J., Collins, P. B., Nielsen, S. & Frische, S., maj 2011, I: *Acta Physiologica*. 202, 1, s. 47-57

Molecular basis of epithelial Ca²⁺ and Mg²⁺ transport: insights from the TRP channel family
Dimke, H., Hoenderop, J. G. J. & Bindels, R. J. M., 1. apr. 2011, I: *Journal of Physiology*. 589, Pt 7, s. 1535-42

γ-Adducin stimulates the thiazide-sensitive NaCl cotransporter
Dimke, H., San-Cristobal, P., de Graaf, M., Lenders, J. W., Deinum, J., Hoenderop, J. G. J. & Bindels, R. J. M., mar. 2011, I: *Journal of the American Society of Nephrology*. 22, 3, s. 508-17 10 s.

Novel molecular pathways in renal Mg²⁺ transport: a guided tour along the nephron
San-Cristobal, P., Dimke, H., Hoenderop, J. G. & Bindels, R. J., sep. 2010, I: *Current Opinion in Nephrology & Hypertension*. 19, 5, s. 456-62

Effects of the EGFR Inhibitor Erlotinib on Magnesium Handling
Dimke, H., van der Wijst, J., Alexander, T. R., Meijer, I. M. J., Mulder, G. M., van Goor, H., Tejpar, S., Hoenderop, J. G. & Bindels, R. J., aug. 2010, I: *Journal of the American Society of Nephrology*. 21, 8, s. 1309-16

Calcitonin-stimulated renal Ca²⁺ reabsorption occurs independently of TRPV₅
Hsu, Y.-J., Dimke, H., Hoenderop, J. G. J. & Bindels, R. J. M., maj 2010, I: *Nephrology Dialysis Transplantation*. 25, 5, s. 1428-35

Testosterone increases urinary calcium excretion and inhibits expression of renal calcium transport proteins
Hsu, Y.-J., Dimke, H., Schoeber, J. P. H., Hsu, S.-C., Lin, S.-H., Chu, P., Hoenderop, J. G. J. & Bindels, R. J. M., apr. 2010, I: *Kidney International*. 77, 7, s. 601-8 8 s.

Hereditary tubular transport disorders: implications for renal handling of Ca²⁺ and Mg²⁺
Dimke, H., Hoenderop, J. G. & Bindels, R. J., jan. 2010, I: *Clinical Science*. 118, 1, 18 s.

Aquaporin Water Channels in Mammalian Kidney
Nielsen, S., Kwon, T.-H., Dimke, H. & Frøkiaer, J., 2008, *Seldin and Giebisch's The Kidney: Physiology and pathophysiology*. 4 udg. Academic Press, Bind 1, chapt. 38. s. 1095-1121, X-XI

Long-term aldosterone treatment induces decreased apical but increased basolateral expression of AQP2 in CCD of rat kidney
de Seigneux, S., Nielsen, J., Olesen, E. T. B., Dimke, H., Kwon, T.-H., Frøkiaer, J. & Nielsen, S., jul. 2007, I: *American Journal of Physiology: Renal Physiology*. 293, 1, s. F87-99

Renal compensation to chronic hypoxic hypercapnia: downregulation of pendrin and adaptation of the proximal tubule
de Seigneux, S., Malte, H., Dimke, H., Frøkiaer, J., Nielsen, S. & Frische, S., apr. 2007, I: *American Journal of Physiology: Renal Physiology*. 292, 4, s. F1256-66

Acute and chronic effects of growth hormone on renal regulation of electrolyte and water homeostasis
Dimke, H., Flyvbjerg, A. & Frische, S., 2007, I: *Growth Hormone & IGF Research*. 17, 5, s. 353-68

Acute growth hormone administration induces antidiuretic and antinatriuretic effects and increases phosphorylation of NKCC2
Dimke, H., Flyvbjerg, A., Bourgeois, S., Thomsen, K., Frøkiaer, J., Houillier, P., Nielsen, S. & Frische, S., 2007, I: *American Journal of Physiology: Renal Physiology*. 292, 2, s. F723-35

Aktiviteter

Invited speaker at the Physiologisches Institut, Christian-Albrechts-Universität, Kiel, Germany

Dimke, H. (Underviser)
31. jan. 2017

Functional characterization, molecular physiology and relevance of pendrin in lung disorders
Dimke, H. (Eksaminator)
2017 → ...

Trimethylangelicin (TMA) interacting directly with the f508del-CFTR protein rescues the chloride secretion
Dimke, H. (Eksaminator)
2017

Experimental Biology
Dimke, H. (Deltager)
2. apr. 2016 → 6. apr. 2016

American Journal of Physiology: Renal Physiology (Tidsskrift)
Dimke, H. (Peer reviewer)
2016 → ...

American Physiological Society (Ekstern organisation)
Dimke, H. (Medlem)
2016 → ...

American Society of Nephrology (Ekstern organisation)
Dimke, H. (Medlem)
2016

Det Unge Akademi - Det Kongelige Danske Videnskabernes Selskab/Young Academy of Denmark - The Royal Danish Academy of Sciences and Letters (Ekstern organisation)
Dimke, H. (Medlem)
2016 → 2021

Invited chairman at the Epithelial Transport Group Satellite Meeting, San Diego, California
Dimke, H. (Arrangør)
2016

Invited speaker at the joint meeting of the Danish Hypertension and Nephrology Societies, Odense University Hospital
Dimke, H. (Foredragsholder)
2016

Invited speaker at the Membrane Disease Protein Research Group, Department of Physiology, University of Alberta, Canada.
Dimke, H. (Foredragsholder)
2016

Invited speaker at the Symposium: Renal Physiology – Old & New, Wallenberg Conference Centre, Gothenburg, Sweden
Dimke, H. (Foredragsholder)
2016

"Hvorfor er forskning sjovt" - Inviteret foredrag hos Sundhedsvidenskabelige Studenter Forskere
Dimke, H. (Foredragsholder)
2015

Inviteret foredragsholder ved sundhedsstyrelsens kursus om nyrefysiologi for nefrologer under uddannelse, ved Odense Universitets Hospital, 2015.

Dimke, H. (Foredragsholder)
2015

American Society of Nephrology 47th Annual Meeting & Scientific Exposition

Dimke, H. (Deltager)
12. nov. 2014

External Referee Panel at the National Charity, Kidney Research UK (Ekstern organisation)

Dimke, H. (Medlem)
2014 → ...

Inauguration talk at the Seminar "New Assistant Professors"

Dimke, H. (Foredragsholder)
2014

Invited chairman at APS Epithelial Transport Group Satellite Meeting, Philadelphia, Pennsylvania

Dimke, H. (Chairman)
2014

Invited speaker at the Danish Neuroscience Center, Aarhus University Hospital

Dimke, H. (Foredragsholder)
2014

Pflügers Archiv - European Journal of Physiology (Tidsskrift)

Dimke, H. (Peer reviewer)
2013 → 2016

Erfaring med undervisning, vejledning og eksamen

Har undervist siden 2008. De senere år har det især drejet sig om fysiologiundervisning til medicin- og biomekanik-studerende (forelæsninger og holdtimer samt øvelsesansvarlig) og dertilhørende eksaminer. Uddannelsesadministrative opgaver: Modultovholder for modul B8 (fra 2016).

Undervisning på SDU siden 2014:

Medicin, Modul B8: Homeostase

- Syre Base Fysiologi

- Renal Clearance

- Diuretika

- Nyrenes regulatoriske funktion

Medicin, Modul B7: Reproduktion og farmakodynamik

- Calcium and Fosfat Balancen

- Kvindelig Reproduktion

- Mandlig Reproduktion

SU502 Syre Base Fysiologi

SU503 Farmakologi for Biomedicin studerende - Knogle metabolismen

2010

Invited speaker at the European Nephropathology Course. Topic: A guided tour along the nephron. Department of Pathology, Academic Medical Center, Amsterdam, The Netherlands.

2008-2010

Computer-assisted renal histology and renal physiology for Biomedical and Medical students, Radboud University Nijmegen

Metoder, materialer og redskaber: Forelæsninger (PowerPoint, tavle), holdundervisning (tavle), ansvarlig for gruppeundervisning (fysiologi-øvelse)

Uddannelsesudvikling og universitetspædagogisk (følge)forskning, herunder pædagogiske priser

2017: Institut for Molekylær Medicins undervisningspris

Formel pædagogisk uddannelse

Universitetspædagogikum (2016)

Metoder, materialer og redskaber

Forelæsninger (PowerPoint, tavle), holdundervisning (tavle), ansvarlig for gruppeundervisning (fysiologi-øvelse)

Uddannelsesadministrative opgaver

Modultovholder for modul B8 (fra 2016).