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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.

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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

Publications

Kidney membrane proteins and epithelial transport

Dimke, H., Nov 2023, In: Acta Physiologica.

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

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

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

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Effects of parathyroid hormone on renal tubular calcium and phosphate handling

Alexander, R. T. & Dimke, H., May 2023, In: Acta Physiologica. 238, 1, 16 p., e13959.

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

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

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

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Sorting Out the Rapid Renal Response to an Oral Phosphate load

Dimke, H., Jun 2022, In: Acta Physiologica. 235, 2, 3 p., 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, In: 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. May 2022, In: FASEB journal : official publication of the Federation of American Societies for Experimental Biology. 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, In: EBioMedicine. 78, 17 p., 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, In: Journal of the American Society of Nephrology. 33, 3, p. 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, In: Acta Physiologica. 234, 2, 11 p., e13731.

Mechanisms Underlying Calcium Nephrolithiasis

Alexander, R. T., Fuster, D. G. & Dimke, H., Feb 2022, In: Annual Review of Physiology. 84, p. 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, In: Scientific Reports. 12, 13 p., 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, In: Clinical Gastroenterology and Hepatology. 19, 12, p. 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, In: Proceedings of the National Academy of Sciences (PNAS). 118, 48, 7 p., e2111247118.

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

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

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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, In: The Journal of biological chemistry. 297, 2, 14 p., 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, In: Altinget.

Politikeres angreb på forskningsfriheden er farlige for vores demokrati

Det Unge Akademi & Dimke, H., 7. Jun 2021, In: Berlingske Tidende.

Renal claudin-14 expression is not required for regulating Mg²⁺ 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. May 2021, In: American Journal of Physiology: Renal Physiology. 320, 5, p. 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, In: Nature Communications. 12, 17 p., 2190.

Unge forskere: Fondsmidler trækker forskningen skæv

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Unge forskere: Der er behov for en bedre model til at støtte coronaforsøket 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, In: PLOS ONE. 16, 2, 6 p., e0247524.

Unge forskere: Flere øremærkede forskningsmidler truer fri forskning

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

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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, In: Hepatology. 72, 6, p. 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, In: 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, In: 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. Oct 2020, In: Altinget.

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

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Vedtag en hjælpepakke til yngre forskere

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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. Sept 2020, In: Information.

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Magnesium: et mirakel mineral?

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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. May 2020, In: 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. May 2020, In: Weekendavisen. p. 13

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

Dimke, H., May 2020, In: *Kidney International*. 97, 5, p. 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, In: *International Journal of Molecular Sciences*. 21, 6, 18 p., 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, In: Altinget.

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Unge forskere: Høj risikovillighed i forskningsfinansieringen er nødvendigt

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Ny stillingsstruktur på universiteterne har flere faldgruber

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

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

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Unge forskere kritiserer strategi: Pionercentre favoriserer få forskere

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

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

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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. Oct 2017, In: *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. Sept 2017, In: *American Journal of Physiology: Renal Physiology*. 313, 3, p. F629-F640

Effect of Diuretics on Renal Tubular Transport of Calcium and Magnesium

Alexander, R. T. & Dimke, H., 1. Jun 2017, In: *American Journal of Physiology: Renal Physiology*. 312, 6, p. 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., Pinsk, M., Erickson, R., Herrmann, J. M., Dimke, H., Cordat, E., Lemaire, M., Walter, M. & Alexander, R. T., Jun 2017, In: *Human Mutation*. 38, 6, p. 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, In: *F1000Research*. 6, 14 p., 1797.

Acidosis and Urinary Calcium Excretion: Insights from Genetic Disorders

Alexander, R. T., Cordat, E., Chambrey, R., Dimke, H. & Eladari, D., Dec 2016, In: *Journal of the American Society of Nephrology*. 27, 12, p. 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. Oct 2016, In: *Journal of Proteome Research*. 15, 12, p. 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, In: *American Journal of Physiology: Renal Physiology*. 310, 3, p. 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, In: *European Journal of Histochemistry*. 59, 4, p. 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. Oct 2015, In: *American Journal of Physiology: Renal Physiology*. 309, 7, p. F604-F616 ajrenal.00651.2014.

Crosstalk in glomerular injury and repair

Dimke, H., Maezawa, Y. & Quaggin, S. E., May 2015, In: *Current Opinion in Nephrology & Hypertension*. 24, 3, p. 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., May 2015, In: *Journal of the American Society of Nephrology*. 26, 5, p. 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, In: Journal of the American Society of Nephrology. 25, 11, p. 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, In: Kidney International. 85, 1, p. 94-102

Paracellular calcium transport across renal and intestinal epithelia

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

Proximal tubular NHEs: sodium, protons and calcium?

Alexander, R. T., Dimke, H. & Cordat, E., 1. Aug 2013, In: American Journal of Physiology: Renal Physiology. 305, 3, p. 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, In: American Journal of Kidney Diseases. 62, 2, p. 377-383 7 p.

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, In: American Journal of Physiology: Renal Physiology. 304, 6, p. 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*. Vol. 1. p. 1405-1439 35 p.

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., Tammaro, 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, In: PLOS ONE. 8, 1, p. 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, In: Cellular and Molecular Life Sciences. 69, 6, p. 981-92

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

Dimke, H., Dec 2011, In: Pflügers Archiv - European Journal of Physiology. 462, 6, p. 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., Frøkiær, J., Collins, P. B., Nielsen, S. & Frische, S., May 2011, In: Acta Physiologica. 202, 1, p. 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, In: Journal of Physiology. 589, Pt 7, p. 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, In: Journal of the American Society of Nephrology. 22, 3, p. 508-17 10 p.

Novel molecular pathways in renal Mg²⁺ transport: a guided tour along the nephron

San-Cristobal, P., Dimke, H., Hoenderop, J. G. & Bindels, R. J., Sept 2010, In: Current Opinion in Nephrology & Hypertension. 19, 5, p. 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, In: *Journal of the American Society of Nephrology*. 21, 8, p. 1309-16

Calcitonin-stimulated renal Ca^{2+} reabsorption occurs independently of TRPV₅

Hsu, Y-J., Dimke, H., Hoenderop, J. G. J. & Bindels, R. J. M., May 2010, In: *Nephrology Dialysis Transplantation*. 25, 5, p. 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, In: *Kidney International*. 77, 7, p. 601-8 8 p.

Hereditary tubular transport disorders: implications for renal handling of Ca^{2+} and Mg^{2+}

Dimke, H., Hoenderop, J. G. & Bindels, R. J., Jan 2010, In: *Clinical Science*. 118, 1, 18 p.

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 ed. Academic Press, Vol. 1, chapt. 38. p. 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, In: *American Journal of Physiology: Renal Physiology*. 293, 1, p. 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, In: *American Journal of Physiology: Renal Physiology*. 292, 4, p. F1256-66

Acute and chronic effects of growth hormone on renal regulation of electrolyte and water homeostasis

Dimke, H., Flyvbjerg, A. & Frische, S., 2007, In: *Growth hormone & IGF research : official journal of the Growth Hormone Research Society and the International IGF Research Society*. 17, 5, p. 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, In: *American Journal of Physiology: Renal Physiology*. 292, 2, p. F723-35

Activities

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

Henrik Dimke (Guest lecturer)
31. Jan 2017

Functional characterization, molecular physiology and relevance of pendrin in lung disorders

Henrik Dimke (Examiner)
2017 → ...

Trimethylangelicin (TMA) interacting directly with the f508del-CFTR protein rescues the chloride secretion

Henrik Dimke (Examiner)
2017

Experimental Biology

Henrik Dimke (Participant)

2. Apr 2016 → 6. Apr 2016

American Journal of Physiology: Renal Physiology (Journal)

Henrik Dimke (Peer reviewer)

2016 → ...

American Physiological Society (External organisation)

Henrik Dimke (Member)

2016 → ...

American Society of Nephrology (External organisation)

Henrik Dimke (Member)

2016

Det Unge Akademi - Det Kongelige Danske Videnskaberne Selskab/Young Academy of Denmark - The Royal Danish Academy of Sciences and Letters (External organisation)

Henrik Dimke (Member)

2016 → 2021

Invited chairman at the Epithelial Transport Group Satellite Meeting, San Diego, California

Henrik Dimke (Organizer)

2016

Invited speaker at the joint meeting of the Danish Hypertension and Nephrology Societies, Odense University Hospital

Henrik Dimke (Lecturer)

2016

Invited speaker at the Membrane Disease Protein Research Group, Department of Physiology, University of Alberta, Canada.

Henrik Dimke (Lecturer)

2016

Invited speaker at the Symposium: Renal Physiology – Old & New, Wallenberg Conference Centre, Gothenburg, Sweden

Henrik Dimke (Lecturer)

2016

"Hvorfor er forskning sjovt" - Inviteret foredrag hos Sundhedsvidenskabelige Studenter Forskere

Henrik Dimke (Lecturer)

2015

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

Henrik Dimke (Lecturer)

2015

American Society of Nephrology 47th Annual Meeting & Scientific Exposition

Henrik Dimke (Participant)

12. Nov 2014

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

Henrik Dimke (Member)

2014 → ...

Inauguration talk at the Seminar "New Assistant Professors"

Henrik Dimke (Lecturer)

2014

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

Henrik Dimke (Chairman)

2014

Invited speaker at the Danish Neuroscience Center, Aarhus University Hospital

Henrik Dimke (Lecturer)

2014

Pflügers Archiv - European Journal of Physiology (Journal)

Henrik Dimke (Peer reviewer)

2013 → 2016

Teaching experience

University of Southern Denmark (2014-)

-Course director module B8, 4th Semester medical school curriculum (15 ECTS) on kidney physiology at University of Southern Denmark (Fall 2016 -)

-Teaching of medical Students, 4th Semester

- Male Reproductive Physiology

- Female Reproductive Physiology

- Calcium and Phosphate Balance

- Acid Base Physiology

- Renal Clearance

-Regulation of Renal Function

-Renal Physiology for Nephrologists In-Training.

-SU502 Physiology for Biomedical Students.

-SU503 Pharmacology for Biomedical Students.

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

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).