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Assistant Professor, Assistant Professor
Renal and Vascular Research
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Employment

Assistant Professor

Renal and Vascular Research

København N.
31 Dec 2014 → nu

Assistant Professor

Renal and Vascular Research

København N.
1 Jan 2015 → nu

Postdoc

Neuronal Signalling

København N., Denmark
1 Sep 2015 → 3 May 2017

Assistant Professor

Molecular and Translational Pharmacology

København N.
1 Jul 2019 → 3 Apr 2021

Internship

Copenhagen University Hospital - Rigshospitalet

København, Denmark
1 Nov 2015 → 31 Oct 2017

Junior Internship

1 Feb 2013 → 31 Jan 2014

Post Doc fellow

Aarhus Universitet, Institut for Biomedicin

Århus, Denmark
1 Jul 2012 → 31 Dec 2014

PhD fellowship

Aarhus Universitet, Institut for Biomedicin

Århus, Denmark
1 Feb 2009 → 1 Apr 2012

Publications

A Vasopressin-Induced Change in Prostaglandin Receptor Subtype Expression Explains the Differential Effect of PGE₂ on AQP2 Expression

Deen, P. M. T., Boone, M., Schweer, H., Olesen, Emma Tina Bisgaard, Carmone, C., Wetzels, J. F. M., Fenton, R. A. & Kortenoeven, M. L. A., 2022, In: *Frontiers in Physiology*. 12, 13 p., 787598.

Aquaporin 2 regulation: implications for water balance and polycystic kidney diseases

Olesen, Emma Tina Bisgaard & Fenton, R. A., 2021, In: *Nature Reviews Nephrology*. 17, p. 765–781

Distinct Roles of Extracellular Domains in the Epstein-Barr Virus-Encoded BILF1 Receptor for Signaling and Major Histocompatibility Complex Class I Downregulation

Fares, S., Spiess, Katja, Olesen, Emma Tina Bisgaard, Zuo, J., Jackson, S., Kledal, T. N., Wills, M. R. & Rosenkilde, Mette, 2019, In: *mBio*. 10, 1, e01707-18.

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, Emma Tina Bisgaard, Peng, L., Olde, B., Leeb-Lundberg, L. M. F., Pisitkun, T., Rieg, T., Dimke, H. & Fenton, R. A., 2019, In: *Journal of the American Society of Nephrology*. 30, 8, p. 1453-1469

The Gβγ-subunit interacts directly with aquaporin-2 (AQP2) and regulates its membrane targeting

Olesen, Emma Tina Bisgaard, Poulsen, S. B., Rosenkilde, Mette, Sorensen, Charlotte Mehlin & Fenton, R. A., 2018.

Acute Aldosterone-mediated Signaling Networks in Distal Convoluted Tubules

Cheng, L., Wu, Q., Olesen, Emma Tina Bisgaard, Peng, L., Pisitkun, T. & Fenton, R., 2017, In: *F A S E B Journal*. 31, S1, 1 p., 857.10.

Aquaporin-2 membrane targeting: still a conundrum

Olesen, Emma Tina Bisgaard & Fenton, R. A., 2017, In: *American Journal of Physiology: Renal Physiology*. 312, 4, p. F744-F747

The Vasopressin Type-2 Receptor and Prostaglandin Receptors EP2 and EP4 can Increase Aquaporin-2 Plasma Membrane Targeting Through a cAMP Independent Pathway

Olesen, Emma Tina Bisgaard, Moeller, H. B., Assentoft, M., MacAulay, Nanna & Fenton, R. A., 1 Nov 2016, In: *American Journal of Physiology: Renal Physiology*. 311, 5, p. F935-F944 10 p.

Gβγ Signaling Regulates Aquaporin-2 Trafficking and Urinary Concentration

Olesen, Emma Tina Bisgaard, Poulsen, S. B., MacAulay, Nanna, Rieg, T. & Fenton, R. A., Apr 2016, In: *F A S E B Journal*. 30, S1

Renal Aquaporins in Health and Disease

Kortenoeven, M. L. A., Olesen, Emma Tina Bisgaard & Fenton, R. A., 2016, *Ion Channels and Transporters of Epithelia in Health and Disease*. Springer, p. 803-854 52 p. (Physiology in Health and Disease).

Use of Genetic Models to Study the Urinary Concentrating Mechanism

Olesen, Emma Tina Bisgaard, Kortenoeven, M. L. A. & Fenton, R. A., 2015, *Sodium and Water Homeostasis*. Hyndman, K. A. & Pannabecker, T. L. (eds.). Springer, p. 43-72 30 p. (Physiology in Health and Disease).

AQP4 plasma membrane trafficking or channel gating is not significantly modulated by phosphorylation at COOH-terminal serine residues

Assentoft, M., Larsen, B. R., Olesen, Emma Tina Bisgaard, Fenton, R. A. & MacAulay, Nanna, 15 Nov 2014, In: *American Journal of Physiology: Cell Physiology*. 307, 10, p. C957-C965 9 p.

Prostaglandin receptor EP2 and EP4 mediated Aquaporin-2 membrane accumulation does not depend on cAMP

Olesen, Emma Tina Bisgaard & Fenton, R. A., Apr 2013, In: *F A S E B Journal*.

Is There a Role for PGE2 in Urinary Concentration?

Olesen, Emma Tina Bisgaard & Fenton, R. A., Feb 2013, In: Journal of the American Society of Nephrology : JASN. 24, 2 , p. 169-178 9 p.

Prostaglandin receptor EP4 induces transient membrane targeting of aquaporin-2 through a novel intracellular signaling pathway

Olesen, Emma Tina Bisgaard & Fenton, R. A., Apr 2012, In: F A S E B Journal.

Vasopressin-independent targeting of aquaporin-2 by selective E-prostanoid receptor agonists alleviates nephrogenic diabetes insipidus.

Olesen, Emma Tina Bisgaard, Rützler, M., Moeller, H. B., Praetorius, H. A. & Fenton, R. A., 2 Aug 2011, In: Proceedings of the National Academy of Sciences of the United States of America. 108(31), p. 12949-54 5 p.

Regulation of the water channel aquaporin-2 by posttranslational modification.

Moeller, H. B., Olesen, Emma Tina Bisgaard & Fenton, R. A., May 2011, In: American Journal of Physiology: Renal Physiology. p. F1062-73 10 p.

Selective E-prostanoid receptor agonists mediate phosphorylation of aquaporin-2 in vitro and ex vivo

Olesen, Emma Tina Bisgaard, Rützler, M. & Fenton, R. A., Apr 2011, In: F A S E B Journal.

Vasopressin independent trafficking of aquaporin-2 by prostaglandin E2

Olesen, Emma Tina Bisgaard, Moeller, H. B., Nielsen, S., Frøkiær, J., Praetorius, H. A. & Fenton, R. A., 2010, In: F A S E B Journal.

Rapid and segmental specific dysregulation of AQP2, S256-pAQP2 and renal sodium transporters in rats with LPS-induced endotoxaemia.

Olesen, Emma Tina Bisgaard, de Seigneux, S., Wang, G., Sophie Constantin, L., Frøkiær, J., Kwon, T. & Nielsen, S., 24 Aug 2009, In: Nephrology, Dialysis, Transplantation. p. 2338-49

Long-term aldosterone treatment induces decreased apical but increased basolateral expression of AQP2 in CCD of rat kidney.

de Seigneux, S., Nielsen, J., Olesen, Emma Tina Bisgaard, Dimke, H. A., Kwon, T., Frøkiær, J. & Nielsen, S., Jul 2007, In: American Journal of Physiology: Renal Physiology.

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