

# Edith Hummler

## List of Publications by Year in descending order

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78  
papers

5,203  
citations

101543

36  
h-index

85541

71  
g-index

80  
all docs

80  
docs citations

80  
times ranked

4328  
citing authors

#	ARTICLE	IF	CITATIONS
1	Early death due to defective neonatal lung liquid clearance in $\hat{\pm}$ ENaC-deficient mice. <i>Nature Genetics</i> , 1996, 12, 325-328.	21.4	841
2	Epithelial Sodium Channel and the Control of Sodium Balance: Interaction Between Genetic and Environmental Factors. <i>Annual Review of Physiology</i> , 2002, 64, 877-897.	13.1	361
3	The Na <sup>+</sup> -dependent chloride-bicarbonate exchanger SLC4A8 mediates an electroneutral Na <sup>+</sup> reabsorption process in the renal cortical collecting ducts of mice. <i>Journal of Clinical Investigation</i> , 2010, 120, 1627-1635.	8.2	275
4	The epidermal barrier function is dependent on the serine protease CAP1/Prss8. <i>Journal of Cell Biology</i> , 2005, 170, 487-496.	5.2	255
5	Synergistic Activation of ENaC by Three Membrane-bound Channel-activating Serine Proteases (mCAP1, Tj ETQq1 1 0.784314 rgBT /Ov Journal of General Physiology, 2002, 120, 191-201.	1.9	210
6	Activation of the Amiloride-Sensitive Epithelial Sodium Channel by the Serine Protease mCAP1 Expressed in a Mouse Cortical Collecting Duct Cell Line. <i>Journal of the American Society of Nephrology: JASN</i> , 2000, 11, 828-834.	6.1	204
7	Collecting duct-specific gene inactivation of $\hat{\pm}$ ENaC in the mouse kidney does not impair sodium and potassium balance. <i>Journal of Clinical Investigation</i> , 2003, 112, 554-565.	8.2	187
8	The transmembrane serine protease (TMPRSS3) mutated in deafness DFNB8/10 activates the epithelial sodium channel (ENaC) in vitro. <i>Human Molecular Genetics</i> , 2002, 11, 2829-2836.	2.9	153
9	A Mouse Model for Liddle's Syndrome. <i>Journal of the American Society of Nephrology: JASN</i> , 1999, 10, 2527-2533.	6.1	128
10	The function and regulation of acid-sensing ion channels (ASICs) and the epithelial Na <sup>+</sup> channel (ENaC): IUPHAR Review 19. <i>British Journal of Pharmacology</i> , 2016, 173, 2671-2701.	5.4	127
11	Renal tubular NEDD4-2 deficiency causes NCC-mediated salt-dependent hypertension. <i>Journal of Clinical Investigation</i> , 2013, 123, 657-65.	8.2	120
12	PAR2 absence completely rescues inflammation and ichthyosis caused by altered CAP1/Prss8 expression in mouse skin. <i>Nature Communications</i> , 2011, 2, 161.	12.8	96
13	The serine protease hepsin mediates urinary secretion and polymerisation of Zona Pellucida domain protein uromodulin. <i>ELife</i> , 2015, 4, e08887.	6.0	92
14	Sodium and Potassium Balance Depends on $\hat{\pm}$ ENaC Expression in Connecting Tubule. <i>Journal of the American Society of Nephrology: JASN</i> , 2010, 21, 1942-1951.	6.1	88
15	ENaC-mediated alveolar fluid clearance and lung fluid balance depend on the channel-activating protease 1. <i>EMBO Molecular Medicine</i> , 2010, 2, 26-37.	6.9	87
16	Dysfunction of epithelial sodium transport: From human to mouse. <i>Kidney International</i> , 2000, 57, 1313-1318.	5.2	79
17	Activation of Epithelial Sodium Channels by Mouse Channel Activating Proteases (mCAP) Expressed in <i>Xenopus Oocytes</i> Requires Catalytic Activity of mCAP3 and mCAP2 but not mCAP1. <i>Journal of the American Society of Nephrology: JASN</i> , 2006, 17, 968-976.	6.1	76
18	$\hat{\pm}$ ENaC-Mediated Lithium Absorption Promotes Nephrogenic Diabetes Insipidus. <i>Journal of the American Society of Nephrology: JASN</i> , 2011, 22, 253-261.	6.1	73

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19	Dysfunction of the Epithelial Sodium Channel Expressed in the Kidney of a Mouse Model for Liddle Syndrome. <i>Journal of the American Society of Nephrology: JASN</i> , 2003, 14, 2219-2228.	6.1	72
20	In vitro and in vivo regulation of transepithelial lung alveolar sodium transport by serine proteases. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2005, 288, L1099-L1109.	2.9	70
21	Mineralocorticoid regulation of epithelial Na <sup>+</sup> channels is maintained in a mouse model of Liddle's syndrome. <i>American Journal of Physiology - Renal Physiology</i> , 2003, 285, F310-F318.	2.7	67
22	Current knowledge on biomarkers for contact sensitization and allergic contact dermatitis. <i>Contact Dermatitis</i> , 2017, 77, 1-16.	1.4	64
23	Colon-Specific Deletion of Epithelial Sodium Channel Causes Sodium Loss and Aldosterone Resistance. <i>Journal of the American Society of Nephrology: JASN</i> , 2014, 25, 1453-1464.	6.1	62
24	Airway Surface Liquid Volume Regulation Determines Different Airway Phenotypes in Liddle Compared with <sup>125</sup> ENaC-overexpressing Mice. <i>Journal of Biological Chemistry</i> , 2010, 285, 26945-26955.	3.4	61
25	Genetic dissection of sodium and potassium transport along the aldosterone-sensitive distal nephron: Importance in the control of blood pressure and hypertension. <i>FEBS Letters</i> , 2013, 587, 1929-1941.	2.8	60
26	Reduced Proximin (CAP1/PRSS8) Activity Eliminates HAI-1 and HAI-2 Deficiency-Associated Developmental Defects by Preventing Matriptase Activation. <i>PLoS Genetics</i> , 2012, 8, e1002937.	3.5	59
27	Chronic hyperaldosteronism in a transgenic mouse model fails to induce cardiac remodeling and fibrosis under a normal-salt diet. <i>American Journal of Physiology - Renal Physiology</i> , 2004, 286, F1178-F1184.	2.7	54
28	Importance of ENaC-Mediated Sodium Transport in Alveolar Fluid Clearance Using Genetically-Engineered Mice. <i>Cellular Physiology and Biochemistry</i> , 2010, 25, 063-070.	1.6	54
29	Epithelial sodium channel, salt intake, and hypertension. <i>Current Hypertension Reports</i> , 2003, 5, 11-18.	3.5	53
30	The epithelial sodium channel mediates the directionality of galvanotaxis in human keratinocytes. <i>Journal of Cell Science</i> , 2013, 126, 1942-51.	2.0	51
31	Aldosterone responsiveness of the epithelial sodium channel (ENaC) in colon is increased in a mouse model for Liddle's syndrome. <i>Journal of Physiology</i> , 2008, 586, 459-475.	2.9	50
32	Lessons from Mouse Mutants of Epithelial Sodium Channel and Its Regulatory Proteins. <i>Journal of the American Society of Nephrology: JASN</i> , 2005, 16, 3160-3166.	6.1	47
33	Expression of Cre Recombinase in Pigment Cells. <i>Pigment Cell &amp; Melanoma Research</i> , 2002, 15, 305-309.	3.6	45
34	The Proteolytic Activation of (H3N2) Influenza A Virus Hemagglutinin Is Facilitated by Different Type II Transmembrane Serine Proteases. <i>Journal of Virology</i> , 2016, 90, 4298-4307.	3.4	40
35	Generation of renal Epo-producing cell lines by conditional gene tagging reveals rapid HIF-2 driven Epo kinetics, cell autonomous feedback regulation, and a telocyte phenotype. <i>Kidney International</i> , 2019, 95, 375-387.	5.2	40
36	Conditional gene targeting of the Scnn1a (ENaC) gene locus. <i>Genesis</i> , 2002, 32, 169-172.	1.6	38

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37	Postnatal Requirement of the Epithelial Sodium Channel for Maintenance of Epidermal Barrier Function. <i>Journal of Biological Chemistry</i> , 2008, 283, 2622-2630.	3.4	38
38	Hypoxia-Induced Inhibition of Epithelial Na <sup>+</sup> Channels in the Lung. Role of Nedd4-2 and the Ubiquitin-Proteasome Pathway. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2014, 50, 526-537.	2.9	37
39	A loop region of BAFF controls B cell survival and regulates recognition by different inhibitors. <i>Nature Communications</i> , 2018, 9, 1199.	12.8	37
40	Mutations of the Serine Protease CAP1/Prss8 Lead to Reduced Embryonic Viability, Skin Defects, and Decreased ENaC Activity. <i>American Journal of Pathology</i> , 2012, 181, 605-615.	3.8	36
41	Severe Salt-Losing Syndrome and Hyperkalemia Induced by Adult Nephron-Specific Knockout of the Epithelial Sodium Channel $\alpha$ -Subunit. <i>Journal of the American Society of Nephrology: JASN</i> , 2016, 27, 2309-2318.	6.1	36
42	Generation of TALEN-Mediated GRdim Knock-In Rats by Homologous Recombination. <i>PLoS ONE</i> , 2014, 9, e88146.	2.5	34
43	Regulation of blood pressure and renal function by NCC and ENaC: lessons from genetically engineered mice. <i>Current Opinion in Pharmacology</i> , 2015, 21, 60-72.	3.5	33
44	Adult nephron-specific MR-deficient mice develop a severe renal PHA-1 phenotype. <i>Pflugers Archiv European Journal of Physiology</i> , 2016, 468, 895-908.	2.8	33
45	Selected Contribution: Limiting Na <sup>+</sup> transport rate in airway epithelia from $\alpha$ -ENaC transgenic mice: a model for pulmonary edema. <i>Journal of Applied Physiology</i> , 2002, 93, 1881-1887.	2.5	29
46	Tissue-Specific Transgenic and Knockout Mice. , 2006, 337, 185-205.		29
47	Implication of ENaC in salt-sensitive hypertension. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 1999, 69, 385-390.	2.5	26
48	The Channel-Activating Protease CAP1/Prss8 Is Required for Placental Labyrinth Maturation. <i>PLoS ONE</i> , 2013, 8, e55796.	2.5	25
49	Critical role of the mineralocorticoid receptor in aldosterone-dependent and aldosterone-independent regulation of ENaC in the distal nephron. <i>American Journal of Physiology - Renal Physiology</i> , 2021, 321, F257-F268.	2.7	24
50	Vasopressin-stimulated CFTR Cl <sup>-</sup> currents are increased in the renal collecting duct cells of a mouse model of Liddle's syndrome. <i>Journal of Physiology</i> , 2005, 562, 271-284.	2.9	23
51	Plasma Potassium Determines NCC Abundance in Adult Kidney-Specific $\alpha$ -ENaC Knockout. <i>Journal of the American Society of Nephrology: JASN</i> , 2018, 29, 977-990.	6.1	23
52	Reducing $\alpha$ -ENaC expression in the kidney connecting tubule induces pseudohypoaldosteronism type 1 symptoms during K <sup>+</sup> loading. <i>American Journal of Physiology - Renal Physiology</i> , 2016, 310, F300-F310.	2.7	22
53	A conditional allele at the mouse channel activating protease 1 (Prss8) gene locus. <i>Genesis</i> , 2002, 32, 173-176.	1.6	21
54	Scnn1 Sodium Channel Gene Family in Genetically Engineered Mice. <i>Journal of the American Society of Nephrology: JASN</i> , 2000, 11, S129-S134.	6.1	21

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55	ENaC activation by proteases. <i>Acta Physiologica</i> , 2022, 235, e13811.	3.8	21
56	Epithelial Sodium Channel-Mediated Sodium Transport Is Not Dependent on the Membrane-Bound Serine Protease CAP2/Tmprss4. <i>PLoS ONE</i> , 2015, 10, e0135224.	2.5	20
57	Interaction between Epithelial Sodium Channel $\beta$ -Subunit and Claudin-8 Modulates Paracellular Sodium Permeability in Renal Collecting Duct. <i>Journal of the American Society of Nephrology: JASN</i> , 2020, 31, 1009-1023.	6.1	20
58	Nitric oxide reduces $\text{Cl}^-$ absorption in the mouse cortical collecting duct through an ENaC-dependent mechanism. <i>American Journal of Physiology - Renal Physiology</i> , 2013, 304, F1390-F1397.	2.7	19
59	Severe hyperkalemia is rescued by low-potassium diet in renal $\beta$ -ENaC-deficient mice. <i>Pflügers Archiv European Journal of Physiology</i> , 2017, 469, 1387-1399.	2.8	19
60	Compensatory up-regulation of angiotensin II subtype 1 receptors in $\beta$ -ENaC knockout heterozygous mice. <i>Kidney International</i> , 2001, 59, 2216-2221.	5.2	18
61	Conditional gene targeting of the ENaC subunit genes <i>Scnn1b</i> and <i>Scnn1g</i> . <i>American Journal of Physiology - Renal Physiology</i> , 2009, 296, F249-F256.	2.7	15
62	Transgenic mice and their impact on kidney research. <i>Pflügers Archiv European Journal of Physiology</i> , 2009, 458, 211-222.	2.8	13
63	The CAP1/Prss8 catalytic triad is not involved in PAR2 activation and protease nexin-1 (PN-1) inhibition. <i>FASEB Journal</i> , 2014, 28, 4792-4805.	0.5	13
64	Altered Prostatic (CAP1/Prss8) Expression Favors Inflammation and Tissue Remodeling in DSS-induced Colitis. <i>Inflammatory Bowel Diseases</i> , 2016, 22, 2824-2839.	1.9	11
65	Selective Deletion of Sodium Salt Taste during Development Leads to Expanded Terminal Fields of Gustatory Nerves in the Adult Mouse Nucleus of the Solitary Tract. <i>Journal of Neuroscience</i> , 2017, 37, 660-672.	3.6	11
66	Deletion of the serine protease CAP2/Tmprss4 leads to dysregulated renal water handling upon dietary potassium depletion. <i>Scientific Reports</i> , 2019, 9, 19540.	3.3	11
67	Activation of the Hypoxia-Inducible Factor Pathway Inhibits Epithelial Sodium Channel-Mediated Sodium Transport in Collecting Duct Principal Cells. <i>Journal of the American Society of Nephrology: JASN</i> , 2021, 32, 3130-3145.	6.1	9
68	Inheritance of a meiosis I error expressed in mouse oocytes and modulated by a maternal factor. <i>Genetical Research</i> , 1987, 49, 239-243.	0.9	8
69	Lack of Renal Tubular Glucocorticoid Receptor Decreases the Thiazide-Sensitive $\text{Na}^+/\text{Cl}^-$ Cotransporter NCC and Transiently Affects Sodium Handling. <i>Frontiers in Physiology</i> , 2019, 10, 989.	2.8	8
70	Kidney-Specific CAP1/Prss8-Deficient Mice Maintain ENaC-Mediated Sodium Balance through an Aldosterone Independent Pathway. <i>International Journal of Molecular Sciences</i> , 2022, 23, 6745.	4.1	6
71	Tgfb1/Bigh3 silencing activates ERK in mouse retina. <i>Experimental Eye Research</i> , 2015, 140, 159-170.	2.6	4
72	ENaC activity in collecting ducts modulates NCC in cirrhotic mice. <i>Pflügers Archiv European Journal of Physiology</i> , 2015, 467, 2529-2539.	2.8	3

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73	Analysis of the Hypoxic Response in a Mouse Cortical Collecting Duct-Derived Cell Line Suggests That Esrra Is Partially Involved in Hif1 $\alpha$ -Mediated Hypoxia-Inducible Gene Expression in mCCDcl1 Cells. International Journal of Molecular Sciences, 2022, 23, 7262.	4.1	3
74	Role of glucocorticoid receptor mutations in hypertension and adrenal gland hyperplasia. Pflugers Archiv European Journal of Physiology, 0, , .	2.8	2
75	Lessons learned about epithelial sodium channels from transgenic mouse models. Current Opinion in Nephrology and Hypertension, 2022, 31, 493-501.	2.0	1
76	Collecting duct $\alpha$ -specific gene inactivation of $\beta$ -ENaC in the mouse kidney does not attenuate rosiglitazone $\alpha$ -induced weight gain. FASEB Journal, 2008, 22, 947.14.	0.5	0
77	Pendrin gene ablation reduces ENaC surface expression and open probability. FASEB Journal, 2013, 27, .	0.5	0
78	Inactivation of the epithelial sodium channel (ENaC) in the aldosterone $\alpha$ -sensitive connecting tubule. FASEB Journal, 2013, 27, 911.7.	0.5	0