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Curriculum Vitae

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PERSONAL INFORMATION

Date of Birth	May 02, 1982
Citizenship	Ukraine, lawful permanent residency (green card) in the USA
Marital status	Single

EDUCATION

1998-2002	B.S. in biology (*summa cum laude*), Taras Shevchenko National University of Kyiv, Kyiv, Ukraine
2002-2004	M.Sc. in biophysics (*summa cum laude*), Taras Shevchenko National University of Kyiv, Kyiv, Ukraine
2007-2010	Ph.D. in biophysics, Bogomoletz Institute of Physiology, Kyiv, Ukraine

PROFESSIONAL EXPERIENCE

2003-2005	Research Assistant, Department of cellular membranology, Bogomoletz Institute of Physiology, Kyiv, Ukraine; supervisor – Prof. Oleg Krishtal
2007-2009	Research Assistant, Department of cellular membranology, Bogomoletz Institute of Physiology, Kyiv, Ukraine; supervisor – Prof. Oleg Krishtal
2009-2011	Junior Research Fellow, Department of cellular membranology, Bogomoletz Institute of Physiology, Kyiv, Ukraine; supervisor – Prof. Oleg Krishtal
2010-2015	Postdoctoral Fellow, Department of Integrative Biology and Pharmacology, McGovern Medical School, the University of Texas Health Science Center at Houston, Houston, TX, USA; supervisor – Prof. Oleh Pochynyuk
2015-2017	Instructor, Department of Integrative Biology and Pharmacology, McGovern Medical School, the University of Texas Health Science Center at Houston, Houston, TX, USA
2017-now	Assistant Professor, Department of Physiology, Medical College of Georgia, Augusta University, Augusta, GA, USA

ACADEMIC/PROFESSIONAL AWARDS

2008	Travel award for the winners of oral presentation contest at the Ukrainian-Polish conference for young scientists: Mechanisms of Intracellular Signaling to attend the *Nencki* Institute of Experimental Biology (Warsaw, Poland)
2009	Travel stipend for young investigators from the federation of European neuroscience societies (FENS) to attend the first FENS featured regional meeting (Warsaw, Poland)
2009	Scholarship from the World Federation of Scientists, Geneva, Switzerland

2010 Personal stipend for young scientists from the National Academy of Sciences of Ukraine

2013 Postdoctoral award for the best oral presentation at the University of Texas Health Science Center at Houston Cell and Regulatory Biology Program Meeting

2014 Postdoctoral award for the best oral presentation at the University of Texas Health Science Center at Houston Cell and Regulatory Biology Program Meeting

2014 Travel award from the American Physiological Society to attend the first Pan-American Congress of Physiological Sciences "Physiology without borders" (Iguassu Falls, Brazil)

2014 Travel award from the American Society of Nephrology (ASN) to attend the Professional Development Seminar at ASN Kidney Week (Philadelphia, PA, USA)

2015 The Society of Experimental Biology and Medicine Young Investigator Award

2015 Cayman Chemical Travel Grant to attend the Experimental Biology 2015 Meeting (Boston, MA, USA)

2015 The American Physiological Society Renal Section Postdoctoral Excellence in Research Award

2015 The University of Texas Medical School Dean's Excellence in Research Award

2017 The American Physiological Society Renal Section Research Recognition Award

2017 The American Physiological Society Epithelial Transport Group Meritorious Research Award

RESEARCH SUPPORT

Current

2015-2019 15SDG25550150 – AHA National Center Winter 2015 Scientist Development Grant (07/01/2015 – 06/30/2019). The role of capacitative calcium entry in AVP-dependent water transport by the kidney. Budget – $308,000. Role – Principal Investigator.

Completed

2014-2015 14POST20380979 – AHA South Western Affiliate Winter 2014 Postdoctoral Fellowship (07/01/2014 – 06/30/2016). A role of store-operated Ca^{2+} entry in AVP-regulated renal water handling. Budget – $107704. Role – Principal Investigator. Relinquished in favor of AHA 15SDG25550150 award.

PROFESSIONAL ORGANIZATIONS

2009-2010 Ukrainian Society for Neuroscience (FENS member society)

2012-2014 The University of Texas Health Science Center Postdoctoral Association

2014-2019 The American Association for the Advancement of Science (AAAS)

2013-now The American Physiological Society (APS)

2014-now The Society for Experimental Biology and Medicine

2014-now The American Society of Nephrology

2015-now The American Heart Association

PEER-REVIEW SERVICE

Grants/Awards

2018 Ad hoc reviewer, the Swiss National Science Foundation (Ambizione grants)

2018-now The American Heart Association, Cardiorenal – Basic Science 1 Committee

Manuscripts *(since)*

2013 PLoS One

2016 American Journal of Physiology – Regulatory, Integrative and Comparative Physiology

2016 International Journal of Molecular Sciences

2017 BioMed Research International

2018 American Journal of Physiology – Renal Physiology

COMMUNITY SERVICE

National

2013 Co-chair at the Renal Section Featured Topic "Recent advances in the mechanisms of renal transport" at the Experimental Biology 2013 meeting (Boston, MA)

2015-2017 Renal Section Subcommittee of the American Physiological Society Trainee Advisory Committee

2018-now The American Heart Association, Council on the Kidney in Cardiovascular Disease, Membership & Communications Committee

Local

2009 Patch-clamp practice instructor for the 2-nd Workshop "Biophysical methods in Research", Bogomoletz Institute of Physiology (Kyiv, Ukraine)

2010 Patch-clamp practice instructor for the 4-th Workshop "Biophysical methods in Research", Bogomoletz Institute of Physiology (Kyiv, Ukraine)

2013-2014 Reviewer, Postdoctoral Association Travel Award Committee, the University of Texas Health Science Center at Houston;

2018 Poster Judge, MCG Graduate Student Research Day

2018-now Organizer of the annual mini-symposiums established by the Department of Physiology, Augusta University

2018-now Director of the Department of Physiology Seminar Series Program at Augusta University

TEACHING EXPERIENCE

2004 Biophysics – Undergraduate Course, Department of Biophysics, Taras Shevchenko National University of Kyiv, Ukraine

2008 Biochemistry – Undergraduate Course, Department of Biochemistry, Taras Shevchenko National University of Kyiv, Ukraine

2017-now Seminars in Physiology, PSIO 9010 – Department of Physiology, Medical College of Georgia, Augusta University

2017-now Scientific Communications, COGS 8012 – Graduate School, Medical College of Georgia, Augusta University

2018-now Pre-matriculation Program for the MCG medical students, Physiology Course

2018-now Integrated Systems Biology, BIOM 8033 – Graduate School, Medical College of Georgia, Augusta University

DISSERTATION COMMITTEES

2017 Ryan Crislip, MCG, AU, Physiology

2018-now Mahmoud Abdelbary, MCG, AU, Physiology

2019-now Sarah Ray, MCG, AU, Physiology

BIBLIOGRAPHY

1) RESEARCH PUBLICATIONS

1. **Mamenko N. V.**, Prudnikov I. M., Krishtal O. A. (2004) Modulation of P2X3 receptor-mediated ATP-operated currents by opioids. Neurophysiology 36(1): 80-81.
2. Chizhmakov I., Yudin E., **Mamenko N.**, Prudnikov I., Tamarova Z., Krishtal O. (2005) Opioids inhibit purinergic nociceptors in the sensory neurons and fibres of rat via a G-protein-dependent mechanism. Neuropharmacology 48: 639-647.
3. Savchenko H. A., Vasylevs'kyi A. A., Pluzhnykov K. A., Korol'kova Iu. V., **Mamenko M. V.**, Volkova T. M., Maksymiuk O. P., Boichuk Ia. A., Hrishyn Ie. V., Kryshtal' O. O. (2009) [Peptide components of Geolycosa spider venom modulate P2X receptor activity of rat sensory neurons]. Fiziol Zh., 55(2): 11-16. (In Ukrainian).
4. Chizhmakov I., **Mamenko N.**, Volkova T., Khasabova I., Simone D. A., Krishtal O. (2009) P2X receptors in sensory neurons co-cultured with cancer cells exhibit a decrease in opioid sensitivity. European Journal of Neuroscience, Vol. 29, pp. 76–86.
5. **Mamenko M. V.**, Chizhmakov I. V., Volkova T. M., Verkhratsky A., Krishtal O. A. (2010) Extracellular cAMP inhibits P2X(3) receptors in rat sensory neurones through G-protein mediated mechanism. Acta Physiol 199(2):199-204.
6. Zaika O.*, **Mamenko M.***, O'Neil R. G., and Pochynyuk O. (2011) Bradykinin acutely inhibits activity of the epithelial Na^+ channels (ENaC) in mammalian aldosterone-sensitive distal nephron. Am J Physiol Renal Physiol. 300(5): F1105-1115.
7. Chen L., Wu H., Pochynyuk O. M., Reisenauer M. R., Zhang Z., Huang L., Zaika O. L., **Mamenko M.**, Zhang W., Zhou Q., Liu M., Xia Y., Zhang W. (2011) Af17 deficiency increases sodium excretion and decreases blood pressure. J. Am. Soc. Nephrol. 22(6):1076-1086.
8. **Mamenko M.**, Zaika O., Jin M., O'Neil R.G., Pochynyuk O. (2011) Purinergic activation of Ca^{2+}-permeable TRPV4 channels is essential for mechano-sensitivity in the aldosterone-sensitive distal nephron. PLoS One. 6(8):e22824.
9. **Mamenko M.***, Zaika O.*, Ilatovskaya D. V., Staruschenko A., Pochynyuk O. (2012) Angiotensin II increases activity of the Epithelial Na^+ Channel (ENaC) in the distal nephron additively to aldosterone. J Biol Chem. 287(1):660-671.
10. Berrout J., Jin M., **Mamenko M.**, Zaika O., Pochynyuk O., O'Neil R. G. (2012) Function of Transient Receptor Potential Cation Channel Subfamily V Member 4 (TRPV4) as a Mechanical Transducer in Flow-Sensitive Segments of Renal Collecting Duct System. J Biol Chem. 287(12):8782-8791.
11. **Mamenko M.**, Zaika O., Doris P. A., and Pochynyuk O. (2012) Salt Dependent Inhibition of ENaC-mediated Sodium Reabsorption in the Aldosterone-Sensitive Distal Nephron by Bradykinin. Hypertension. 60(5):1234-1241.
12. Zaika O.*, **Mamenko M.***, Berrout J., Boukelmoune N., O'Neil R. G., Pochynyuk O. (2013) TRPV4 Dysfunction Promotes Renal Cystogenesis in Autosomal Recessive Polycystic Kidney Disease. J Am Soc Nephrol. 24(4):604-616.
13. Kakoki M., Pochynyuk O. M., Hathaway C. M., Tomita H., Hagaman J. R., Kim H. S., Zaika O. L., **Mamenko M.**, Kayashima Y., Matsuki K., Hiller S., Li F., Xu L., Grant R., Bertorello A. M., Smithies O. (2013) Primary aldosteronism and impaired natriuresis in mice underexpressing TGFβ1. Proc Natl Acad Sci U S A. 110(14):5600-5605.
14. **Mamenko M.**, Zaika O., Boukelmoune N., Berrout J., O'Neil R. G., Pochynyuk O. (2013) Discrete Control of TRPV4 Function in the Distal Nephron by PKA and PKC. J Biol Chem. 288(28): 20306-20314.

15. Zaika O., **Mamenko M.**, Palygin O., Boukelmoune N., Staruschenko A., Pochynyuk O. (2013) Direct inhibition of basolateral Kir4.1/5.1 and Kir4.1 channels in the cortical collecting duct by dopamine. Am J Physiol Renal Physiol. 305(9): F1277-1287.
16. **Mamenko M.***, Zaika O.*, Prieto M. C., Jensen V. B., Doris P. A., Navar L. G., Pochynyuk O. (2013) Chronic Angiotensin II Infusion Drives Extensive Aldosterone-Independent Epithelial Na^+ Channel Activation. Hypertension. 62(6): 1111-1122.
17. Berrout J., **Mamenko M.**, Zaika O.L., Chen L., Zang W., Pochynyuk O., and O'Neil R.G. (2014). Emerging role of the calcium-activated, small conductance, SK3 K^+ channel in distal tubule function: Regulation by TRPV4. PLoS ONE 9: e95149.
18. Zaika O., **Mamenko M.**, Boukelmoune N., Pochynyuk O. (2015) IGF-1 and insulin exert opposite actions on ClC-K2 activity in the cortical collecting ducts. Am J Physiol Renal Physiol. 308(1):F39-48.
19. Zaika O, Palygin O, Tomilin V, **Mamenko M.**, Staruschenko A, Pochynyuk O. (2016) Insulin and IGF-1 activate Kir4.1/5.1 channels in cortical collecting duct principal cells to control basolateral membrane voltage. Am J Physiol Renal Physiol. 310(4): F311-321.
20. Hu X., Adebiyi M. G., Luo J., Sun K., Le T. T., Zhang Y., Wu H., Zhao S., Karmouty-Quintana H., Liu H., Huang A., Wen Y. E., Zaika O. L., **Mamenko M.**, Pochynyuk O. M., Kellems R. E., Eltzschig H. K., Blackburn M. R., Walters E. T., Huang D., Hu H., Xia Y.(2016) Sustained Elevated Adenosine via ADORA2B Promotes Chronic Pain through Neuro-immune Interaction. Cell Rep. 16(1):106-19.
21. **Mamenko M.**, Dhande I., Tomilin V., Zaika O., Boukelmoune N., Zhu Y., Gonzalez-Garay M. L., Pochynyuk O. and Doris P. A. (2016) Defective Store-Operated Calcium Entry Causes Partial Nephrogenic Diabetes Insipidus. J Am Soc Nephrol 27(7):2035-48.
22. **Mamenko M. V.**, Boukelmoune N., Tomilin V. N., Zaika O. L., Jensen V. B., O'Neil R. G., Pochynyuk O. M. The renal TRPV4 channel is essential for adaptation to increased dietary potassium. Kidney Int. 2017; 91(6):1398-1409. PMID: 28187982.
23. Prieto M. C., Reverte V., **Mamenko M.**, Kuczeriska M., Veiras L. C., Rosales C. B., McLellan M., Gentile O., Jensen V. B., Ichihara A., McDonough A. A, Pochynyuk O. M., Gonzalez A. A. (2017) Collecting Duct Prorenin Receptor Knockout Reduces Renal Function, Increases Na+ Excretion and Mitigates renal Responses in ANGII induced hypertensive mice. Am J Physiol Renal Physiol. 313(6): F1243-F1253. doi: 10.1152/ajprenal.00152.2017. PMID: 28814438.
24. **Mamenko M.**, Zaika O., Tomilin V., Jensen V. B., Pochynyuk O. (2018) Compromised regulation of the collecting duct ENaC activity in mice lacking AT(1a) receptor. J Cell Physiol. 233(9):7217-7225. doi: 10.1002/jcp.26552. PMID: 29574718.
25. Cherezova A.*, Tomilin V.*, Buncha V., Zaika O., Ortiz P. A., Mei F., Cheng X., **Mamenko M.**, Pochynyuk O. (2019) Urinary concentrating defect in mice lacking Epac1 or Epac2. FASEB Journal. 33(2):2156-2170. doi: 10.1096/fj.201800435R. PMID: 30252533
26. Wenceslau C. F., McCarthy C. G., Szasz T., Calmasini F. B., **Mamenko M.**, Webb R. C. (2019) Formyl peptide receptor-1 activation exerts a critical role for the dynamic plasticity of arteries via actin polymerization. Pharmacol Res. 141: 276-290. doi: 10.1016/j.phrs.2019.01.015. PMID: 30639374.

* – equal contribution

2) <u>REVIEWS</u>

1. Zaika O., **Mamenko M.**, Staruschenko A., Pochynyuk O. (2013) Direct Activation of ENaC by Angiotensin II: Recent Advances and New Insights. *Curr Hypertens Rep*. **15(1)**: 17-24.
2. Pochynyuk O., Zaika O., O'Neil R. G., **Mamenko M.** (2013) Novel insights into TRPV4 function in the kidney. *Pflugers Arch.* **465(2)**: 177-186.
3. **Mamenko M.**, Zaika O., Pochynyuk O. (2014) Direct regulation of ENaC by bradykinin in the distal nephron. Implications for renal sodium handling. *Curr Opin Nephrol Hypertens.* **23(2)**: 122-129.

4. **Mamenko M.**, Zaika O., Boukelmoune N., O'Neil R. G., Pochynyuk O. (2015) Deciphering physiological role of the mechanosensitive TRPV4 channel in the distal nephron. *Am J Physiol Renal Physiol.* **308(4)**: F275-F286.
5. Tomilin V., **Mamenko M.**, Zaika O., Pochynyuk O. (2016) Role of renal TRP channels in physiology and pathology. *Semin Immunopathol.* **38(3)**:371-83.
6. Zaika O., Tomilin V., **Mamenko M.**, Bhalla V., Pochynyuk O. (2016) New Perspective of ClC-Kb/2 Chloride Channel Physiology in the Distal Renal Tubule. *Am J Physiol Renal Physiol.* **310(10)**:F923-30.

3) BOOK CHAPTERS

1. **Mamenko M.**, Zaika O., O'Neil R. G., Pochynyuk O. (2013) Ca^{2+} imaging as a tool to assess TRP channel function in murine distal nephrons. *Methods Mol Biol.* **998**:371-384.
2. **Mamenko M.**, Zaika O., Boukelmoune N., Madden E., Pochynyuk O. (2015) Control of ENaC-Mediated Sodium Reabsorption in the Distal Nephron by Bradykinin. *Vitam Horm.* **98**:137-54.

4) PUBLISHED ABSTRACTS

1. **M. V. Mamenko**, I. V. Chizhmakov, T. M. Volkova, O. O. Krishtal (2008). [Co-culturing of nodose ganglion neurons with cancer cells reduces the inhibitory effect of opioids on the currents, mediated by P2X2/3 receptors]. Fiziologichnyi Zhurnal, Vol. 54, #2, 117-118. (In Ukrainian).
2. **M. V. Mamenko**, I. V. Chizhmakov, T. M. Volkova, O. O. Krishtal (2008). [The effect of opioids on purinergic P2X2/3 receptors of nodose ganglion neurons]. Neurosciences: theoretical and clinical aspects, Vol. 4, #1, Appendix. (In Ukrainian).
3. Krishtal O., Chizhmakov I., **Mamenko N.**, Volkova T., Khasabova I. & Simone D. (2008). Slow P2X receptors in sensory neurons of rat demonstrate a loss of opioid inhibitory control in co-culture with bone cancer cells. FENS Abstr., Vol. 4, 124.20.
4. Savchenko G. A., **Mamenko M. V.** (2009) Modulation of Spinal Cord Sensory Entries by Opioids and Natural Toxins. // Neuro-Glial Interactions from Womb to Tomb in Health and Disease: Ege V-th Biennial International Neuroscience Graduate Summer School, June 29 – July 4, 2009: Abstracts. – Izmir, Turkey, P. 63.
5. **M. Mamenko**, I. Chizhmakov, T. Volkova, I. Khasabova, D. Simone, O. Krishtal. (2009) Modulation of P2X2/3 receptors by opioids in rat nodose neurons. 9-th International Congress of Polish Neuroscience Society: The First FENS Featured Regional Meeting, Sept. 9-12, 2009, Warsaw, Poland. Acta Neurobiologiae Experimentalis 69(3), p. 325.
6. O. Zaika, **M. Mamenko** and O. Pochynyuk. (2011) Angiotensin II activates ENaC via both aldosterone-sensitive and aldosterone-independent mechanisms. FASEB J. 25: 1041.22
7. **M. Mamenko**, O. Zaika, R. G. O'Neil and O. Pochynyuk. (2011) Local ATP/Purinergic and Bradykinin Signaling Cascades Complementary Contribute to the Maximal PLC Activation in the Mammalian Distal Nephron. FASEB J. 25: 1039.14
8. **M. Mamenko**, O. Zaika, O. Pochynyuk. (2011) Aldosterone-independent regulation of ENaC by salt intake. International Symposium on Aldosterone and the ENaC/Degenerin Family of Ion channels: Molecular Mechanisms and Pathophysiology, Pacific Grove, CA.
9. O. Pochynyuk, **M. Mamenko**, O. L. Zaika. (2011) Functional Coupling Between Antinatriuretic Ang II and Natriuretic Bradykinin Signaling Cascades Is Critical for Aldosterone-Independent Regulation of ENaC by Dietary Sodium Intake. [Abstract] J. Am. Soc. Nephrol. 22: 525A.
10. **M. Mamenko**, O. L. Zaika, R. G. O'Neil, and O. Pochynyuk. (2011) Purinergic Cascade Contributes to the Activation of Ca^{2+}-Permeable TRPV4 Channels by Mechanical Forces in the Aldosterone-Sensitive Distal Nephron. [Abstract] J. Am. Soc. Nephrol. 22: 660A.
11. J. Berrout, M. Jin, **M. Mamenko**, O. L. Zaika, O. Pochynyuk and R. G. O'Neil. (2012) TRPV4 Is a Mechanotransducer of Fluid Flow in Principal Cells (PC) and Intercalated Cells (IC) of the Renal Collecting Duct System. FASEB J. 26, 867.26.

12. O. L Zaika, **M. Mamenko**, J. Berrout, R. G. O'Neil and O. Pochynyuk. (2012) Dysfunction of TRPV4 Channels in the Collecting Duct-Derived Cysts of ARPKD. FASEB J. 26, 868.2.
13. **M. Mamenko**, O. L Zaika, R. G. O'Neil and O. Pochynyuk. (2012) Purinergic Signaling Reciprocally Contributes to the TRPV4-Mediated Mechano-Sensitive Response in the Aldosterone-Sensitive Distal Nephron. FASEB J. 26, 867.21.
14. **M. Mamenko**, O. L. Zaika, and O. Pochynyuk. (2012) Aldosterone and Angiotensin II Complementary Stimulate ENaC Activity During Systemic Salt Restriction. FASEB J. 26, 867.20.
15. **M. Mamenko**, O. L. Zaika, O. Pochynyuk. (2012) Disruption of Bradykinin Signaling Impairs ENaC Adaptation to Dietary Salt Intake [Abstract]. J. Am. Soc. Nephrol. 23: 495A.
16. **M. Mamenko**, O. L. Zaika, O. Pochynyuk. (2012) PKC and PKA Differentially Regulate TRPV4 Activity and Trafficking in Distal Nephron [Abstract]. J. Am. Soc. Nephrol. 23: 495A.
17. **M. Mamenko**, O. L. Zaika, R. G. O'Neil, O. Pochynyuk. (2012) TRPV4 Functional Status Is Impaired in the Collecting Duct-Derived Cysts of ARPKD [Abstract]. J. Am. Soc. Nephrol. 23: 76A.
18. O. L. Zaika, **M. Mamenko** and O. Pochynyuk. (2013) Dopamine Inhibits Basolateral Potassium Channels in the Murine Distal Nephron. FASEB J. 27, 912.11.
19. J. Berrout, **M. Mamenko**, O. L. Zaika, O. Pochynyuk and R. G. O'Neil. (2013) Expression and Function of the Ca^{2+}-Dependent SK3 K^+ Channel in Mouse Cortical Collecting Duct: Regulation by TRPV4. FASEB J. 27. 912.14.
20. **M. Mamenko**, O. L. Zaika, P. A. Doris and Oleh Pochynyuk. (2013) Salt-Dependent Inhibition of the Epithelial Sodium Channel (ENaC) by Bradykinin. FASEB J. 27, 911.5.
21. **M. Mamenko**, O. L. Zaika, N. Boukelmoune, J. Berrout, R. G. O'Neil and O. Pochynyuk. (2013) Separate Control of TRPV4 Activity and Trafficking in the Distal Nephron. FASEB J. 27, 912.4.
22. O. Zaika, **M. Mamenko**, N. Boukelmoune, and O. Pochynyuk. (2014) IGF-1 Acutely Increases Activity of Basolateral ClC-K2-like Cl^- Channels in the Distal Nephron. FASEB J. 28: 892.12.
23. N. Boukelmoune, **M. Mamenko**, O. Zaika, R.G. O'Neil, and O. Pochynyuk. (2014) TRPV4 Function in the Distal Nephron Is Regulated by Dietary Potassium and Sodium Intake. FASEB J. 28: 892.2.
24. **M. Mamenko**, O. Zaika, M. Prieto, B. Jensen, P. Doris, L. G. Navar, and O. Pochynyuk. (2014) Coordinated Regulation of ENaC Activity in the Distal Nephron by Aldosterone and Ang II. FASEB J. 28: 1088.14.
25. **M. Mamenko**, O. Zaika, N. Boukelmoune, R. G. O'Neil, and O. Pochynyuk. (2014) Distinct Mechanisms Of $[Ca^{2+}]_i$ Responses to Flow and Hypotonicity in the Distal Nephron. FASEB J. 28: 892.5.
26. **M. Mamenko**, O. L. Zaika, N. Boukelmoune, R. G. O'Neil, O. Pochynyuk. (2014) TRPC3 Channel Regulates Sensitivity of Murine Distal Nephron Cells to Hypotonicity [Abstract]. J. Am. Soc. Nephrol. 25: 654A.
27. **M. Mamenko**, O. L. Zaika, N. Boukelmoune, O. Pochynyuk, P. A. Doris. (2014) STIM1 Dysfunction Causes NDI-Like Symptoms in Rats [Abstract]. J. Am. Soc. Nephrol. 25: 654A.
28. N. Boukelmoune, **M. Mamenko**, O. Zaika, R.G. O'Neil, and O. Pochynyuk. (2015) Regulation of Renal TRPV4 Activity by Dietary Potassium Intake is Essential for The Maintenance of K^+ Homeostasis FASEB J. 29: 666.4
29. O. Zaika, **M. Mamenko**, N. Boukelmoune, and O. Pochynyuk. (2015) Insulin and IGF-1 Exert Distinct Actions on the Basolateral Electrolyte Fluxes in Principal and Intercalated Cells of the Collecting Duct. FASEB J. 29: 666.23
30. **M. Mamenko**, O. Zaika, N. Boukelmoune, R.G. O'Neil, and O. Pochynyuk. (2015) TRPC3 Facilitates Adaptation of Collecting Duct Cells to Changes in Osmolality. FASEB J. 29: 666.17
31. **M. Mamenko**, I. Dhande, O. Zaika, N. Boukelmoune, O. Pochynyuk, and P. Doris. (2015) Disrupted store-operated calcium entry causes nephrogenic Diabetes insipidus in rats. FASEB J. 29: 809.18
32. N. Ramkumar, D. Stuart, E. V. Mironova, V. Bugay, **M. Mamenko**, S. Wang, A. Ichihara, O. Pochynyuk, J. D. Stockand, D. E. Kohan. (2015) Nephron Specific Deletion of the Prorenin Receptor Modulates Blood Pressure and Urinary Na^+ Excretion. Hypertension. 66 (Suppl. 1): A021-A021.
33. N. Ramkumar, D. Stuart, E. V. Mironova, V. V. Bugay, **M. Mamenko**, S. No Wang, O. Pochynyuk, J. D. Stockand, D. E. Kohan. (2015) Nephron Specific Deletion of the Prorenin Receptor Modulates Blood Pressure and Urinary Na Excretion. [Abstract]. J. Am. Soc. Nephrol. 26: 77A.

34. A. A. Gonzalez, V. Reverte-Ribo, A. Katsurada, C. B. Rosales, M. Galatty, M. McLellan, O. Gentile, L. C. Veiras, D. M. Seth, A. Ichihara, A. A. McDonough, **M. Mamenko**, O. Pochynyuk, L. G. Navar, M. C. Prieto. (2016) Lack of the Prorenin Receptor in the Collecting Duct blunts the ENaC responses to Chronic Angiotensin II. FASEB J 30 (1 Supplement), 741.1-741.1
35. O. Zaika, V.Tomilin, **M. Mamenko**, O. Pochynyuk. (2016) Distinct regulation of the basolateral conductance in the collecting duct by Na^+ and K^+ intake. FASEB J 30 (1 Supplement), 967.8-967.8.
36. V. Tomilin, **M. Mamenko**, O. Zaika, O. Pochynyuk. (2016) TRPC3 serves as a link between osmosensitivity and water transport in the mouse collecting duct. FASEB J 30 (1 Supplement), 970.2-970.2.
37. **M. Mamenko**, V. Tomilin, O. Zaika, O. Pochynyuk. (2016) High K^+ Intake Attenuates ARPKD Progression by Activation of TRPV4-mediated Ca^{2+} Signaling in Cyst Cells. FASEB J 30 (1 Supplement), 741.10.
38. I. S. Dhande, **M. Mamenko**, Y. Zhu, O. Pochynyuk, S. Wenderfer, M. Braun, P. A. Doris. (2017) Aberrant $CD4^+$ T Cell Function in Stroke-prone Hypertensive Rats Due to a Mutation in Stim1. Hypertension 68: (Suppl 1), A004-A004
39. O. Zaika, V. Tomilin, **M. Mamenko**, O. Pochynyuk. (2017) Dietary K^+ and Cl^- independently regulate basolateral conductance in the principal and intercalated cells of the collecting duct. FASEB J. 31: (1_Supplement), 856.14.
40. V. N. Tomilin, O. Zaika, **M. Mamenko**, G. Reif, D. Wallace, O. Pochynyuk. (2017) Diminished TRPV4 activity contributes to compromised $[Ca^{2+}]_i$ homeostasis in human ADPKD cells. FASEB J. 31: (1_supplement), 1032.5.
41. **M. Mamenko**, I. Dhande, V. Tomilin, O. Zaika, P. A. Doris. (2017) Molecular basis of AVP-regulated calcium signaling in the collecting duct. FASEB J. 31: (1_supplement), 703.15.
42. I. Dhande, S. Kneedler, Y. Zhu, **M. Mamenko**, M. Hicks, O. Pochynyuk, S. Wenderfer, M. Braun, P. Doris. (2018) Increased susceptibility to hypertensive renal disease in spontaneously hypertensive rats due to a mutation in Stim1. FASEB J. 32(1_supplement), 716.20.
43. V. N. Tomilin, O. Zaika, **M. Mamenko**, O. M. Pochynyuk. (2018) TRPV4 inhibition protects against hypokalemia during low K^+ intake. FASEB J. 32: (1_supplement), 620.5.
44. A. Cherezova, V. Tomilin, V. Buncha, O. Zaika, F. Mei, X. Cheng, **M. Mamenko**, O. Pochynyuk. (2018) Osmotic Diuresis and Impaired Urinary Concentrating Ability in Epac Knockouts. FASEB J. 32: (1_supplement), 621.10.

ORAL PRESENTATIONS AND INVITED TALKS

1. Opioid modulation of ATP-induced currents mediated by P2X3 receptors. The International conference for young scientists at Bogomoletz Institute of Physiology (2003, Kyiv, Ukraine).
2. Co-culturing of nodose neurones with tumour cells attenuates the inhibitory action of opioids on P2X2/3 Receptor mediated currents. The Ukrainian-Polish conference for young scientists: Mechanisms of Intracellular Signaling (2007, Kyiv, Ukraine).
3. Angiotensin II activates ENaC via both aldosterone-sensitive and aldosterone-insensitive mechanisms. The Experimental Biology 2011 Meeting (Washington, DC).
4. Angiotensin II activates ENaC via both aldosterone-sensitive and aldosterone-insensitive mechanisms. The UT Health Science Center at Houston Cell and Regulatory Biology Program Meeting (2011, Camp Allen, TX).
5. Purinergic regulation of mechano-sensitive TRPV4 channel in native collecting duct and collecting duct-derived cyst monolayers of ARPKD. The Young Investigators Symposium in Epithelial Biology in conjunction with the Experimental Biology 2012 meeting (San Diego, CA).
6. Purinergic signaling reciprocally contributes to the TRPV4-mediated mechano-sensitive response in the aldosterone-sensitive distal nephron. The Experimental Biology 2012 Meeting (San Diego, CA).
7. TRPV4 Functional status is impaired in the collecting duct-derived cysts of ARPKD. The ASN Kidney Week (2012, San Diego, CA).

8. Salt-dependent inhibition of the epithelial sodium channel (ENaC) by bradykinin. The UT Health Science Center at Houston Cell and Regulatory Biology Program Meeting (2013, Camp Allen, TX).

9. Salt-dependent inhibition of the epithelial sodium channel (ENaC) by bradykinin. The Experimental Biology 2013 Meeting (Boston, MA).
10. Separate control of TRPV4 activity and trafficking in the distal nephron. The Experimental Biology 2013 Meeting (Boston, MA).
11. TRP channels and osmosensitivity in the distal nephron. The 54-th Annual Meeting of the Southern Salt, Water and Kidney Club (2013, Sarasota, FL).
12. STIM1 dysfunction causes nephrogenic Diabetes insipidus in spontaneously hypertensive rats. The UT Health Science Center at Houston Cell and Regulatory Biology Program Meeting (2014, Camp Allen, TX).
13. Store-operated Ca^{2+} entry in AVP-dependent water transport in the collecting duct. The Young Investigators Symposium in Epithelial Biology in conjunction with the Experimental Biology 2014 meeting (San Diego, CA).
14. STIM1 dysfunction causes nephrogenic Diabetes insipidus in spontaneously hypertensive rats. 2014 Dean's Excellence in Research Award Symposium (Houston, TX).
15. TRPV4-mediated Calcium Flux in Polycystic Kidney Disease. The first Pan-American Congress of Physiological Sciences "Physiology without borders" (2014, Iguassu Falls, Brazil).
16. Disrupted store-operated calcium entry causes nephrogenic Diabetes insipidus in rats. The Experimental Biology 2015 Meeting (Boston, MA).
17. Ca^{2+} – the Master and Commander at the Distal Side of the Nephron. 2015 Dean's Excellence in Research Award Symposium (Houston, TX).
18. Disruption of store operated Ca^{2+} entry causes Nephrogenic Diabetes insipidus. The annual workshop "Epithelial Physiology and Cell Biology" (2015, Telluride, CO).
19. Coordinated regulation of ENaC activity by aldosterone and angiotensin II in the aldosterone sensitive distal nephron. The 8-th international symposium "Aldosterone, MR, and Salt – What's new?" (2015, Zermatt, Switzerland).
20. Ca^{2+} signaling in the distal nephron. 2015 UT Health Science Center at Houston Medical School Research Retreat (Houston, TX).
21. Store-operated Ca^{2+} entry in AVP-dependent water transport in the kidney. The Division of Nephrology of the University of Utah Health Science Center (2015, Salt Lake City, UT).
22. Defective Store-Operated Calcium Entry in the Collecting Duct Causes Nephrogenic Diabetes Insipidus. The Nephrology Grand Rounds at the Baylor College of Medicine (2015, Houston, TX).
23. High K^+ Intake Attenuates ARPKD Progression by Activation of TRPV4-mediated Ca^{2+} Signaling in Cyst Cells. The Experimental Biology 2016 Meeting (San Diego, CA).
24. Store-operated Ca^{2+} entry in AVP-dependent water transport in the kidney. Department of Physiology, the Medical College of Georgia, Augusta University (Augusta, GA, May 25, 2016).
25. Calcium signaling in the collecting duct: implications in PKD and water handling. The Gulf Coast Kidney Bioscience Interest Group (GCKBIG) Meeting (Houston, TX, September 6, 2016)
26. Molecular basis of AVP-regulated calcium signaling in the collecting duct. The Experimental Biology 2017 Meeting (Chicago, IL).
27. Connecting the dots: calcium signaling in renal water transport. STaR 2017 Conference (Augusta, GA; September 2017).
28. Lifting the veil: physiological relevance of the cAMP binding protein Epac in the kidney. The Department of Physiology Seminar Series, the Medical College of Georgia, Augusta University (Augusta, GA; February 2018).

29. Sex-specific impact of MR antagonism on renal Na^+ reabsorption and blood pressure in Ang II induced hypertension. The Adrenal Research Meeting (Augusta, GA; December 2018).