

Peer-reviewed Publications

Articles

1. Castro Sesquen Y, Saraf SL, Gordeuk VR, Nekhai S, **Jerebtsova M**. Use of Multiple Urinary Biomarkers for the Early Detection of Chronic Kidney Disease in Sickle Cell Anemia. *Blood Adv*. 2023 Jan 12;bloodadvances.2022008006. doi: 10.1182/bloodadvances.2022008006. Online ahead of print.
2. Afangbedji N, **Jerebtsova M**. Glomerular filtration rates abnormalities in sickle cell disease. *Front Med (Lausanne)*. 2022 Oct 21;9:1029224. Doi:10.3389/fmed.2022.1029224. eCollection 2022. PMID:36341242
3. Afangbedji N, Kumari N, Diaz SF, Wen F, Taylor JG, Nekhai S, **Jerebtsova M**. Soluble urokinase-type plasminogen activator receptor in sickle cell-disease-associated chronic kidney disease. *Blood Adv*. 2022 Sep 14;bloodadvances.2022008374.doi:10.1182/bloodadvances.202208374. Online ahead of print.
4. Nekhai S, Lin X, Soni S, Taye A, Smith N, Afangbedji N, Saraf SL, Gordeuk VR, Taylor JG, **Jerebtsova M**. Urinary Kringle Domain-Containing Protein HGFL: A Validated Biomarker of Early Sickle Cell Anemia-Associated Kidney Disease. *Am J Nephrol*. **2021**;52(7):582-587. doi: 10.1159/000517056. Epub 2021 Aug 10. PMID: 34375971
5. Das JR, **Jerebtsova M**, Tang P, Li J, You J, Ray PE. Circulating Fibroblast Growth Factor-2 precipitates HIV-nephropathy in mice. *Dis Model Mech*. 2021 Jul 1;14(7):dmm048980. doi: 10.1242/dmm.048980. Epub 2021 Jul 26. PMID: 34308967
6. **Marina Jerebtsova**, Ammanuel Taye, Nathan Smith, Nowah Afangbedji, Daniel Stokes, Xiaomei Niu, Sharmin Diaz, James G. Taylor VI, and Sergei Nekhai. Association between plasma and urinary orosomucoid and chronic kidney disease in adults with sickle cell anemia. *Br J Haematol*. **2020** Jul;190(1):e45-e48. doi: 10.1111/bjh.16702. Epub 2020 May 5. PMID: 32372411
7. **Jerebtsova M**, Ahmad A, Kumari N, Rutagarama O, Nekhai A. Macrophage HIV-1 Gene Expression and Delay Resolution of Inflammation in HIV-Tg Mice. *Viruses* **2020** Mar 1;12(3). pii: E277. doi: 10.3390/v12030277.
8. **Jerebtsova M**, Ahmad A, Niu X, Rutagarama O, Nekhai S. HIV-1 Transcription Inhibitor 1E7-03 Restores LPS-Induced Alteration of Lung Leukocytes' Infiltration Dynamics and Resolves Inflammation in HIV Transgenic Mice *Viruses* **2020** Feb 12;12(2). pii: E204. doi: 10.3390/v12020204.
9. **Marina Jerebtsova** and Sergei Nekhai. Inhibition of HIV-1 transcription through disruption of TAT-PP1 interaction as a novel target for functional HIV cure. *NAPDD* **2019** Jan 08; 4;4 doi: [10.19080/NAPDD.2019.04.555642](https://doi.org/10.19080/NAPDD.2019.04.555642)
10. Ammosova T, Pietzsch CA, Saygideger Y, Ilatovsky A, Lin X, Ivanov A, Kumari N, Jerebtsova M, Kulkarni A, Petukhov M, Uren A, Bukreev A, Nekhai S. Protein Phosphatase 1-Targeting Small-Molecule C31 Inhibits Ebola Virus Replication. *J Infect Dis* **2018** Nov 22;218 (suppl_5):S627-S635. doi:0.1093/infdis/jiy422.
11. Khaibullina A, Adjei EA, Afangbedji N, Ivanov A, Kumari N, Almeida LEF, Quezado ZMN, Nekhai S, **Jerebtsova M**. RON kinase inhibition reduces renal endothelial injury in sickle cell disease mice. *Haematologica*. **2018** May;103(5):787-798. doi: 10.3324/haematol.2017.180992. Epub 2018 Mar 8. PMID:29519868
12. **Jerebtsova M**, Saraf SL, Soni S, Afangbedji N, Lin X, Raslan R, Gordeuk VR, Nekhai S. Urinary orosomucoid is associated with progressive chronic kidney disease stage in patients with sickle cell anemia. *Am J Hematol*. 2018 Aug;93(4):E107-E109. doi: 10.1002/ajh.25036. Epub 2018 Feb 5.

13. **Jerebtsova M**, Saraf SL, Lin X, Lee G, Adjei EA, Kumari N, Afangbedji N, Raslan R, McLean C, Gordeuk VR, Nekhai S. Identification of ceruloplasmin as a biomarker of chronic kidney disease in urine of sickle cell disease patients by proteomic analysis. *Am J Hematol*. **2018** Feb;93(2):E45-E47. doi: 10.1002/ajh.24965. Epub 2017 Nov 27.
14. Lin X, Kumari N, DeMarino C, Kont YS, Ammosova T, Kulkarni A, **Jerebtsova M**, Vazquez-Meves G, Ivanov A, Dmytro K, Üren A, Kashanchi F, Nekhai S. Inhibition of HIV-1 infection in humanized mice and metabolic stability of protein phosphatase-1-targeting small molecule 1E7-03. *Oncotarget*. **2017** Aug 7;8(44):76749-76769. doi: 10.18632/oncotarget.19999. eCollection 2017 Sep 29. PMID: 29100346
15. Kumari N, Ammosova T, Diaz S, Lin X, Niu X, Ivanov A, **Jerebtsova M**, Dhawan S, Oneal P, Nekhai S. Increased iron export by ferroportin induces restriction of HIV-1 infection in sickle cell disease. *Blood Adv* **2016** Dec 27;1(3):170-183. doi: 10.1182/bloodadvances.2016000745.
16. Ammosova T, Washington K, Rotimi J, Kumari N, Smith KA, Niu X, **Jerebtsova M**, Nekhai S. Protein Phosphatase-1 Regulates Expression of Neuregulin-1. *Biology (Baseel)* **2016** Dec 2;5(4). pii: E49.
17. **Jerebtsova M**, Das JR, Tang P, Wong E, Ray P.E. Angiopoietin-1 prevents severe bleeding complications induced by heparin-like drugs and fibroblast growth factor 2 in mice. *Am J Physiol Heart Circ Physiol*. **2015** Oct; 309(8):H1314-25. doi: 10.1152/ajpheart.00373.2015. Epub 2015 Aug 14
18. Smith K.A. Li X, Bolshakov O, Griffin J, Niu X, Kovalskyy D, Ivanov A, **Jerebtsova M**, Taylor R.E., Akala E., Nekhai S. Activation of HIV-1 with nanoparticle-packaged small molecule protein phosphatase 1 targeting compound. *Sci Pharm* **2015**. Jun 22;83(3):535-48. doi: 10.3797/scipharm.1502-01. eCollection 2015.
19. Ammosova T, Platonov M, Ivanov A, Kont YS, Kumari N, Kehn-Hall K, **Jerebtsova M**, Kulkarni AA, Uren A, Kovalskyy D, Nekhai S. 1E7-03, a low MW compound targeting host protein phosphatase-1, inhibits HIV-1 transcription. *Br J Pharmacol*. **2014** Nov;171(22):5059-75. doi: 10.1111/bph.12863.
20. Xie X, Colberg-Poley AM, Das JR, Li J, Zhang A, Tang P, **Jerebtsova M**, Gutkind JS, Ray PE. The basic domain of HIV-tat transactivating protein is essential for its targeting to lipid rafts and regulating fibroblast growth factor-2 signaling in podocytes isolated from children with HIV-1-associated nephropathy. *J Am Soc Nephrol*. **2014** Aug;25(8):1800-13. doi: 10.1681/ASN.2013070710. Epub 2014 Feb 27.
21. **Jerebtsova M**, Kumari N, Obuhkov Y, Nekhai S. Adenoviral E4 gene stimulates secretion of PEDF that maintains long-term survival of human glomerulus-derived endothelial cells. *Mol Cell Proteomics*. **2012** 11:1378-88
22. **Jerebtsova M**, Kumari N, Xu M, de Melo GB, Niu X, Jeang KT, Nekhai S. HIV-1 Resistant CDK2-Knockdown Macrophage-Like Cells Generated from 293T Cell-Derived Human Induced Pluripotent Stem Cells. *Biology* **2012** 2:175-195
23. Mattison PC, Soler-García AA, Das JR, **Jerebtsova M**, Perazzo S, Tang P, Ray PE. Role of circulating fibroblast growth factor-2 in lipopolysaccharid-induced acute kidney injury in mice. *Pediatr Nephrol* **2012** 3:469-83
24. Ammosova T, Yedavalli VR, Niu X, **Jerebtsova M et al**. Expression of a protein phosphatase 1 inhibitor, cdNIPP1, increases CDK9 threonine 186 phosphorylation and inhibits HIV-1 transcription. *J Biol Chem* **2011** 286(5):3798-804
25. Debebe Z, Ammosova T, Breuer D, Lovejoy DB, Kalinowski DS, Karla PK, Kumar K, **Jerebtsova M**, Ray P, Kashanchi F, Gordeuk VR, Richardson DR, Nekhai S. Iron chelators of the di-2-pyridylketone thiosemicarbazone and 2-benzoylpyridine thiosemicarbazone series inhibit HIV-1 transcription: identification of novel cellular targets--iron, cyclin-dependent kinase (CDK) 2, and CDK9. *Mol Pharmacol* **2011** 79(1):185-96.

26. **Jerebtsova M**, Klotchenko SA, Artamonova TO, Ammosova T, Washington K, Egorov VV, Shaldzhyan AA, Sergeeva MV, Zatulovskiy EA, Temkina OA, Petukhov MG, Vasin AV, Khodorkovskii MA, Orlov YN, Nekhai S. **et al.** Mass spectrometry and biochemical analysis of RNA polymerase II: targeting by protein phosphatase-1. *Mol Cell Biochem* **2011** 347(1-2):79-87
27. Charles S, Ammosova T, Cardenas J, Foster A, Rotimi J, **Jerebtsova M et al.** Regulation of HIV-1 transcription at 3% versus 21% oxygen concentration. *J Cell Physiol* **2009** 221(2):469-79
28. **Jerebtsova M**, Ye X, Ray PE. A simple technique to establish a long-term adenovirus mediated gene transfer to the heart of newborn mice. *Cardiovasc Hematol Disord Drug Targets* **2009** 2:136-40
29. **Jerebtsova M**, et al. A novel role of fibroblast growth factor-2 and pentosan polysulfate in the pathogenesis of intestinal bleeding in mice. *Am J Physiol Heart Circ Physiol* **2007** 292(2):H743-50
30. Ammosova T, Berro R, **Jerebtsova M et al.** Phosphorylation of HIV-1 Tat by CDK2 in HIV-1 transcription. *Retrovirology* **2006** 3:78
31. Debebe Z, Ammosova T, **Jerebtsova M et al.** Nekhai S. Iron chelators ICL670 and 311 inhibit HIV-1 transcription. *Virology* **2007** 367(2):324-33.
32. Nekhai S, Bhat UG, Ammosova T, Radhakrishnan SK, **Jerebtsova M**, Niu X, Foster A, Layden TJ, Gartel AL. A novel anticancer agent ARC antagonizes HIV-1 and HCV. *Oncogene* **2007** 26(26):3899-903
33. Li Z, **Jerebtsova M et al.** Novel cystogenic role of basic fibroblast growth factor in developing rodent kidneys. *Am J Physiol Renal Physiol*. **2006** 291:289-296
34. **Jerebtsova M et al.** Adenovirus-mediated gene transfer to glomerular cells in newborn mice. *Pediatr Nephrol* **2005** 20:1395-1400
35. Tang P, **Jerebtsova M**, Przygodzki R, Ray PE. Fibroblast growth factor-2 increases the renal recruitment and attachment of HIV-infected mononuclear cells to renal tubular epithelial cells. *Pediatr Nephrol* **2005** 20:1708-1716
36. Ammosova T, **Jerebtsova M**, et al. Nuclear targeting of protein phosphatase-1 by HIV-1 Tat protein. *J Biol Chem* **2005** 280:36364-36371
37. Ammosova T, **Jerebtsova M.** et al. Nuclear protein phosphatase-1 regulates HIV-1 transcription. *J Biol. Chem* **2003** 278: 32189-32194
38. **Jerebtsova M**, Batshaw ML, Ye X. Humoral immune response to recombinant adenovirus and adeno-associated virus after in utero administration of viral vectors in mice. *Pediatr Res* **2002** 52: 95-104
39. Washington, K., Ammosova, T., Beullens, M., **Jerebtsova, M et al.** Protein Phosphatase-1 dephosphorylates the C-terminal domain of RNA Polymerase-II. *J Biol Chem* **2002** 277: 40442-40448
40. Ye X, **Jerebtsova M**, Liu XH, Li X, Ray PE. Adenovirus-mediated gene transfer to renal glomeruli in rodents. *Kidney Int* **2002** 61: 16-23
41. Mitchel M, **Jerebtsova M**, Batshaw ML, Neuman K, Ye X. Long-term gene transfer to mouse fetuses with recombinant adenovirus and adeno-associated virus vectors. *Gene Ther* **2000** 7:1986-1992
42. Ye X, Whiteman B, **Jerebtsova M**, Batshaw ML. Correction of argininosuccinate synthetase (AS) deficiency in a murine model of citrullinemia with recombinant adenovirus carrying human AS cDNA. *Gene Ther* **2000** 7: 1777-1782
43. Ye X, **Jerebtsova M**, Ray PE. Liver bypass significantly increases the transduction efficiency of recombinant adenoviral vectors in the lung, intestine, and kidney. *Hum Gene Ther* **2000** 11: 621-62

44. Orlov YN, **Zherebtsova MA**, Kazbekov EN. Affinity identification of organic anion transporters in brush-border membrane vesicles from rat kidney. *Biochim Biophys Acta*. **1994** 1192: 117-124
45. Bresler V, Valter S, **Jerebtsova M** et al. The influence of the lipid bilayer phase state on the p-aminohippurate transport and the activity of the alkaline phosphatase in brush-border membrane vesicles from normal and mutant rats. *Biochim Biophys Acta* **1989** 982: 288-294

Reviews and book chapters

1. **Jerebtsova M**, Nekhai S. Therapeutics for post exposure treatment of Ebola virus infection. *Future Virology* **2015** 10(3): 221-232. Review
2. **Jerebtsova M**, Nekhai S. Quantitative mass spectrometry of urinary biomarkers. *JIOMICS* **2014** 4(2):69-78
3. Nekhai S, **Jerebtsova M**, Jackson A, Southerland W. Regulation of HIV-1 transcription by protein phosphatase 1. *Curr HIV Res* **2007** 1:3-9. Review
4. Nekhai S, **Jerebtsova M**. Therapies for HIV with RNAi. *Curr Opin Mol Ther* **2006** 8:52-61. Review
5. Nekhai S, **Jerebtsova M**, Jackson A, Southerland W. Regulation of HIV-1 Transcription by protein phosphatase-1. *Curr HIV Res* **2006**. Review
6. Ray PE, **Jerebtsova M**, Ye X. Terapia génica renal. *Nefrología Pediátrica* **2003**: 565-577. Spanish. Review
7. **Jerebtsova M**. Immunology of cancer treatment and gene therapy. *Molecular genetics, biophysics and medicine today*. **2002**: 247-260. Russia. Review

Proceedings

1. Alhakami F, Ahmad A, **Jerebtsova M**, and Nekhai S. Ferroportin Q248H mutation leads to a moderate iron load in mutants Slc40a1q248H/Q248H mice. *Blood* (2022)140 (Supplement1): 5343-53-44
2. Kumari N, Ahmad A, Berto-Junior C, Ivanov A, Wen F, Diaz S, Taylor J.G, **Jerebtsova M**, and Nekhai S. Antiviral response and HIV-1 inhibition in sickle cell disease. *Blood* (2022) 140 (Supplement 1):5387-5388
3. Nekhai S, Kumari N, Wang S, Diaz S, and **Jerebtsova M**. Upregulation of antiviral factors that inhibit HIV-1 infection in sickle cell disease. *Blood* 138 (**2021**): 960-962
4. **Jerebtsova M**, Nekhai S. Sickle cell hemoglobin induces autophagy in human macrophages. *Blood* 138 (**2021**): 952-954
5. Afangbedji NKA, Taylor JG, Nekhai S, **Jerebtsova M**. Elevated plasma soluble urokinase -type plasminogen activator receptor in sickle cell disease - a marker of chronic kidney disease. *Blood* 138 (**2021**): 968-970
6. Harold G. Dorsey, Tatiana Ammosova, Santosh L. Saraf, Victor R. Gordeuk, Sergei Nekhai and **Marina Jerebtsova**. Mass-Spectrometry Analysis of Urinary Biomarkers of Endothelial Injury in Sickle Cell Anemia Patients. *Blood* **2020** 136 (Supplement 1): 28–29. <https://doi.org/10.1182/blood-2020-138446>
7. Namita Kumari, **Marina Jerebtsova**, Songping Wang, Sharmin Diaz and Sergei Nekhai. Interferon Induction By HbS, SERINC5 Upregulation and Reduction of HIV-1 *Nef* and AP2 Contribute to HIV-1 Restriction in Sickle Cell Disease. *Blood* **2020** 136 (Supplement 1): 5–6. <https://doi.org/10.1182/blood-2020-142699>

8. Yagahira E. Castro-Sesquen, Santosh L. Saraf, Victor R. Gordeuk, Sergei Nekhai and **Marina Jerebtsova**. Use of Multiple Urinary Biomarkers for Early Detection of Chronic Kidney Disease in Sickle Cell Anemia Patients. *Blood* **2020** 136 (Supplement 1): 30.
9. **Jerebtsova M.**, Niu X., Diaz S., Kumari N, Nekhai S. "Sickle Cell Hemoglobin Impairs Lysosomal Processing in Macrophages Leading to Inflammasome Activation and Inflammation " Poster. *Blood* (**2019**) 134 (Supplement_1):979. ASH 61th annual meeting, December 6-9, 2019, Orlando, FL.
10. Ammanuel Taye, Nathan Smith, Nowah Kokou Apeadoufia Afangbedji, Xiaomei Niu, James G. Taylor, **Marina Jerebtsova** and Sergei Nekhai. Orosomuroid As a Biomarker for Chronic Kidney Disease Associated with Sickle Cell Anemia. *Blood* (**2018**) 132:2352;
11. Xionghao Lin, Santosh L. Saraf, Simran Soni, Nowah Kokou Apeadoufia Afangbedji, Victor R. Gordeuk, **Marina Jerebtsova** and Sergei Nekhai. Quantitative Proteomics Identify Urinary Hgfl Protein As a Potential Marker for the Development of Chronic Kidney Disease in Sickle Cell Disease Patients. *Blood* (**2017**) 130:967;
12. **Marina Jerebtsova**, Alfia Khaibullina, Elena Afia Adjei, Nowah Kokou Apeadoufia Afangbedji, Andrey Ivanov, Namita Kumari, Zena Quezado and Sergei Nekhai. RON Kinase Inhibition Reduces Renal Endothelial Injury in Sickle Cell Disease Mice. *Blood* (**2017**) 130:965;
13. Guelaguetza Vazquez-Meves, Namita Kumari, Nowah Afangbedji, Alfia Khaibullina, Zena Quezado, Sergei Nekhai and **Marina Jerebtsova**. Upregulation of Renal Iron Methabolism in Sickle Cell Disease Mice. *Blood* (**2016**) 128:1276;
14. Santosh L.Saraf, Xionghao Lin, Gillian Lee, Elena Afia Adjei, Namita Kumari, Victor R. Gordeuk, **Marina Jerebtsova** and Sergei Nekhai. Urinary Ceruloplasmin Concentration Predict Development of Kidney Disease in Sickle Cell Disease Patients. *Blood* (**2016**) 128:4865;
15. Xionghao Lin, Elena Afia Adjei, Santosh L.Saraf, Victor R. Gordeuk, Sergei Nekhai, **Marina Jerebtsova**. Elevated Levels of HGFL Protein in Sickle Cell Disease Urine Samples That Induce Glomerular Permeability. *Blood* (**2016**) 128:4841;
16. **Marina Jerebtsova**, Elena Afia Adjei, Alfia Khaibullina, Zena Quezado and Sergei A. Nekhai. Role of Macrophage Stimulating Protein 1 (MSP1) in the Development of Glomerulopathy in Sickle Cell Disease. *Blood* (**2015**) 126:4583
17. Xionghao Lin, Elena Afia Adjei, Namita Kumari, Sharmin Diaz, **Marina Jerebtsova**, Patricia A. Oneal and Sergei Nekhai. Semi-Automatic Enrichment with High Resolution/Selected Reaction Monitoring (HR/SRM) Scan for the Detection of Urinary Hepcidin in Patients with Sickle Cell Disease. *Blood* (**2015**) 126:3418;