

Bibliography

Sergei Nekhai, Ph.D.

Department of Medicine

Howard University College of Medicine

Patents, Inventions, Copyrights

Sergei Nekhai and Xionghao Lin, Method for treating or inhibiting HIV-1 infection using small molecules targeting RAC1, in submission.

Sergei Nekhai, Dmytro Borysovich Kovalskyy “Inhibitors of protein phosphatase-1 and uses thereof”(U.S. application number: 12/424,243; publication number: US 2009/0264463 A1; Filing date: Apr 15, 2009)

Sergei Nekhai, Dmytro Borysovich Kovalskyy “Iron chelators as HIV-1 inhibitors” (U.S. application number: 14/399,646; Filing date: November 7, 2014)

Sergei Nekhai and Alexander Bukreyev, US9447047B2, “PP1 inhibitors for treating Ebola viral infection”. Submitted as provisional application on 08/01/12 and resubmitted as full patent on 03/13/2013.

Sergei Nekhai and Alexander Bukreyev, Canadian Patent No. CA 28818967 in the name of Howard University and The Board of Regents of the University of Texas System “Inhibitors of Protein Phosphatase-1 and Uses Thereof”, filing date 03/14/2013

Sergei Nekhai and Alexander Bukreyev, South Africa Patent No. 2015/01216 in the name of Howard University and The Board of Regents of the University of Texas System “Inhibitors of Protein Phosphatase-1 and Uses Thereof”

Sergei Nekhai and Alexander Bukreyev, Nigeria patent No. NG/PT/C/2015/913 issued July 13, 2017, in the name of Howard University and The Board of Regents of the University of Texas System “Inhibitors of Protein Phosphatase-1 and Uses Thereof”

Publications

NCBI publications directory (151 citations) :

<https://www.ncbi.nlm.nih.gov/myncbi/sergei.nekhai.1/bibliography/public/>

Peer-reviewed journal articles (total 149)

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. PMID: 36634264.\
2. Li X, Quick C, Zhou H, Gaynor SM, Liu Y, Chen H, Selvaraj MS, Sun R, Dey R, Arnett DK, Bielak LF, Bis JC, Blangero J, Boerwinkle E, Bowden DW, Brody JA, Cade BE, Correa A, Cupples LA, Curran JE, de Vries PS, Duggirala R, Freedman BI, Göring HHH, Guo X, Haessler J, Kalyani RR, Kooperberg C, Kral BG, Lange LA, Manichaikul A, Martin LW, McGarvey ST, Mitchell BD, Montasser ME, Morrison AC, Naseri T, O'Connell JR, Palmer ND, Peyser PA, Psaty BM, Raffield LM, Redline S, Reiner AP, Reupena MS, Rice KM, Rich SS, Sitlani CM, Smith JA, Taylor KD, Vasan RS, Willer CJ, Wilson JG, Yanek LR, Zhao W; NHLBI Trans-Omics for Precision Medicine (TOPMed) Consortium, TOPMed Lipids Working Group; Rotter JI, Natarajan P, Peloso GM, Li Z, Lin X. Powerful, scalable and resource-efficient meta-analysis of rare variant associations in large whole genome

- sequencing studies. *Nat Genet.* 2023 Jan;55(1):154-164. doi: 10.1038/s41588-022-01225-6. Epub 2022 Dec 23. PMID: 36564505
3. Li Z, Li X, Zhou H, Gaynor SM, Selvaraj MS, Arapoglou T, Quick C, Liu Y, Chen H, Sun R, Dey R, Arnett DK, Auer PL, Bielak LF, Bis JC, Blackwell TW, Blangero J, Boerwinkle E, Bowden DW, Brody JA, Cade BE, Conomos MP, Correa A, Cupples LA, Curran JE, de Vries PS, Duggirala R, Franceschini N, Freedman BI, Göring HH, Guo X, Kalyani RR, Kooperberg C, Kral BG, Lange LA, Lin BM, Manichaikul A, Manning AK, Martin LW, Mathias RA, Meigs JB, Mitchell BD, Montasser ME, Morrison AC, Naseri T, O'Connell JR, Palmer ND, Peyser PA, Psaty BM, Raffield LM, Redline S, Reiner AP, Reupena MS, Rice KM, Rich SS, Smith JA, Taylor KD, Taub MA, Vasan RS, Weeks DE, Wilson JG, Yanek LR, Zhao W; NHLBI Trans-Omics for Precision Medicine (TOPMed) Consortium; TOPMed Lipids Working Group; Rotter JI, Willer CJ, Natarajan P, Peloso GM, Lin X. A framework for detecting noncoding rare-variant associations of large-scale whole-genome sequencing studies. *Nat Methods.* 2022 Dec;19(12):1599-1611. doi: 10.1038/s41592-022-01640-x. Epub 2022 Oct 27. PMID: 36303018 Free PMC article.
 4. Lin X, Ahmad A, Ivanov AI, Simhadri J, Wang S, Kumari N, Ammosova T, **Nekhai S.** HIV-1 Transcription Inhibitor 1E7-03 Decreases Nucleophosmin (NPM1) Phosphorylation. *Mol Cell Proteomics.* 2023. 20:100488. doi: 10.1016/j.mcpro.2022. PMID: 36563749
 5. Okpala I, Chukwuka C, Nouraie S, Nekhai S, Onwuka C, Hezekiah I, Obodo O, Maisamari D, Okereke K, Oden A, Tanko Y, Ezekekwe C, Kwaghi V, Onyedum C, Nnodu O. Effect of Sickle Cell Trait on Human Immunodeficiency Virus Type 1 Infection. *Open AIDS J.* 2022;16:e187461362208150. doi: 10.2174/18746136-v16-e2208150. Epub 2022 Oct 14.
 6. Earley EJ, Kelly S, Fang F, Alencar CS, Rodrigues DOW, Soares Cruz DT, Flanagan JM, Ware RE, Zhang X, Gordeuk V, Gladwin M, Zhang Y, Nouraie M, **Nekhai S.**, Sabino E, Custer B, Dinardo C, Page GP. Genome-wide association study of early ischaemic stroke risk in Brazilian individuals with sickle cell disease implicates ADAMTS2 and CDK18 and uncovers novel loci. International Component of the NHLBI Recipient Epidemiology and Donor Evaluation Study (REDS-III) and the NHLBI Trans-Omics for Precision Medicine (TOPMed) Consortium. *Br J Haematol.* 2023 Jan 5. doi: 10.1111/bjh.18637. 2023 Apr;201(2):343-352. PMID: 36602125
 7. 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.* 2023 May 9;7(9):1854-1857.
 8. **Nekhai S.** and Kumari N. HIV-1 infection in sickle cell disease and sickle cell trait: role of iron and innate response. 2022. *Expert Rev Hematol.* Mar 24:1-11. PMC9041812
 9. Pushkarsky T, Ward A, Ivanov A, Lin X, Sviridov D, **Nekhai S.**, Bukrinsky MI. Abundance of Nef and p-Tau217 in Brains of Individuals Diagnosed with HIV-Associated Neurocognitive Disorders Correlate with Disease Severity. 2022. *Mol. Neurobiology.* 59(2):1088-1097. PMCID: PMC8857174
 10. Taub MA, Conomos MP, Keener R, Iyer KR, Weinstock JS, Yanek LR, Lane J, Miller-Fleming TW, Brody JA, Raffield LM, McHugh CP, Jain D, Gogarten SM, Laurie CA, Keramati A, Arvanitis M, Smith AV, Heavner B, Barwick L, Becker LC, Bis JC, Blangero J, Bleeker ER, Burchard EG, Celedón JC, Chang YPC, Custer B, Darbar D, de Las Fuentes L, DeMeo DL, Freedman BI, Garrett ME, Gladwin MT, Heckbert SR, Hidalgo BA, Irvin MR, Islam T, Johnson WC, Kaab S, Launer L, Lee J, Liu S, Moscati A, North KE, Peyser PA, Rafaels N, Seidman C, Weeks DE, Wen F, Wheeler MM, Williams LK, Yang IV, Zhao W, Aslibekyan S, Auer PL, Bowden DW, Cade BE, Chen Z, Cho MH, Cupples LA, Curran JE, Daya M, Deka R, Eng C, Fingerlin TE, Guo X, Hou L, Hwang SJ, Johnsen JM, Kenny EE, Levin AM, Liu C,

- Minster RL, Naseri T, Nouraie M, Reupena MS, Sabino EC, Smith JA, Smith NL, Su JL, Taylor JG, Telen MJ, Tiwari HK, Tracy RP, White MJ, Zhang Y, Wiggins KL, Weiss ST, Vasan RS, Taylor KD, Sinner MF, Silverman EK, Shoemaker MB, Sheu WH, Sciurba F, Schwartz DA, Rotter JI, Roden D, Redline S, Raby BA, Psaty BM, Peralta JM, Palmer ND, **Nekhai S**, Montgomery CG, Mitchell BD, Meyers DA, McGarvey ST; NHLBI CARE Network, Mak AC, Loos RJ, Kumar R, Kooperberg C, Konkle BA, Kelly S, Kardia SL, Kaplan R, He J, Gui H, Gilliland FD, Gelb BD, Fornage M, Ellinor PT, de Andrade M, Correa A, Chen YI, Boerwinkle E, Barnes KC, Ashley-Koch AE, Arnett DK; NHLBI Trans-Omics for Precision Medicine (TOPMed) Consortium; TOPMed Hematology and Hemostasis Working Group; TOPMed Structural Variation Working Group, Laurie CC, Abecasis G, Nickerson DA, Wilson JG, Rich SS, Levy D, Ruczinski I, Aviv A, Blackwell TW, Thornton T, O'Connell J, Cox NJ, Perry JA, Armanios M, Battle A, Pankratz N, Reiner AP, Mathias RA. Genetic determinants of telomere length from 109,122 ancestrally diverse whole-genome sequences in TOPMed. *Cell Genom.* 2022 Jan 12;2(1):100084. PMCID: PMC9075703.
11. Kumari, N., Nouraie, M., Ahmad, A., Lassiter, H., Khan, J., Diaz, S., Afangbedji, N., Wang, S., Houston, P.E., Ammosova, T., de Mulder Rougvie, M., Rana, S., Nixon, D.F., Anastos, K., Lazar, J., French, A.L., Gange, S., Adimora, A., Weitzmann, M.N., Fischl, M., Kempf, M.-C., Kassaye, S., Taylor VI, J.G., and **Nekhai, S.** Restriction of HIV-1 infection in Sickle Cell trait. 2021. *Blood Adv.*, 5(23):4922-4934. PMCID: PMC9153004
 12. Selvaraj MS, Li X, Li Z, Pampana A, Zhang DY, Park J, Aslibekyan S, Bis JC, Brody JA, Cade BE, Chuang LM, Chung RH, Curran JE, de Las Fuentes L, de Vries PS, Duggirala R, Freedman BI, Graff M, Guo X, Heard-Costa N, Hidalgo B, Hwu CM, Irvin MR, Kelly TN, Kral BG, Lange L, Li X, Lisa M, Lubitz SA, Manichaikul AW, Michael P, Montasser ME, Morrison AC, Naseri T, O'Connell JR, Palmer ND, Peyser PA, Reupena MS, Smith JA, Sun X, Taylor KD, Tracy RP, Tsai MY, Wang Z, Wang Y, Bao W, Wilkins JT, Yanek LR, Zhao W, Arnett DK, Blangero J, Boerwinkle E, Bowden DW, Chen YI, Correa A, Cupples LA, Dutcher SK, Ellinor PT, Fornage M, Gabriel S, Germer S, Gibbs R, He J, Kaplan RC, Kardia SLR, Kim R, Kooperberg C, Loos RJF, Viaud-Martinez KA, Mathias RA, McGarvey ST, Mitchell BD, Nickerson D, North KE, Psaty BM, Redline S, Reiner AP, Vasan RS, Rich SS, Willer C, Rotter JI, Rader DJ, Lin X; NHLBI Trans-Omics for Precision Medicine (TOPMed) Consortium; Peloso GM, Natarajan P. Whole genome sequence analysis of blood lipid levels in >66,000 individuals. *Nat Commun.* 2022 Oct 11;13(1):5995. doi: 10.1038/s41467-022-33510-7. PMID: 36220816 Free PMC article
 13. Tahir UA, Katz DH, Avila-Pacheco J, Bick AG, Pampana A, Robbins JM, Yu Z, Chen ZZ, Benson MD, Cruz DE, Ngo D, Deng S, Shi X, Zheng S, Eisman AS, Farrell L, Hall ME, Correa A, Tracy RP, Durda P, Taylor KD, Liu Y, Johnson WC, Guo X, Yao J, Chen YI, Manichaikul AW, Ruberg FL, Blaner WS, Jain D; NHLBI Trans-Omics for Precision Medicine 1 Consortium; Bouchard C, Sarzynski MA, Rich SS, Rotter JI, Wang TJ, Wilson JG, Clish CB, Natarajan P, Gerszten RE. Whole Genome Association Study of the Plasma Metabolome Identifies Metabolites Linked to Cardiometabolic Disease in Black Individuals. *Nat Commun.* 2022 Aug 22;13(1):4923. doi: 10.1038/s41467-022-32275-3. PMID: 35995766 Free PMC article.
 14. Wainschtein P, Jain D, Zheng Z; TOPMed Anthropometry Working Group; NHLBI Trans-Omics for Precision Medicine (TOPMed) Consortium; Cupples LA, Shadyab

- AH, McKnight B, Shoemaker BM, Mitchell BD, Psaty BM, Kooperberg C, Liu CT, Albert CM, Roden D, Chasman DI, Darbar D, Lloyd-Jones DM, Arnett DK, Regan EA, Boerwinkle E, Rotter JI, O'Connell JR, Yanek LR, de Andrade M, Allison MA, McDonald MN, Chung MK, Fornage M, Chami N, Smith NL, Ellinor PT, Vasan RS, Mathias RA, Loos RJF, Rich SS, Lubitz SA, Heckbert SR, Redline S, Guo X, Chen Y-I, Laurie CA, Hernandez RD, McGarvey ST, Goddard ME, Laurie CC, North KE, Lange LA, Weir BS, Yengo L, Yang J, Visscher PM. Assessing the contribution of rare variants to complex trait heritability from whole-genome sequence data. *Nat Genet*. 2022 Mar;54(3):263-273. doi: 10.1038/s41588-021-00997-7. Epub 2022 Mar 7. PMID: 35256806 Free PMC article.
15. Katz DH, Tahir UA, Bick AG, Pampana A, Ngo D, Benson MD, Yu Z, Robbins JM, Chen ZZ, Cruz DE, Deng S, Farrell L, Sinha S, Schmaier AA, Shen D, Gao Y, Hall ME, Correa A, Tracy RP, Durda P, Taylor KD, Liu Y, Johnson WC, Guo X, Yao J, Ida Chen YD, Manichaikul AW, Jain D, Bouchard C, Sarzynski MA, Rich SS, Rotter JI, Wang TJ, Wilson JG, Natarajan P, Gerszten RE; National Heart, Lung, and Blood Institute TOPMed (Trans-Omics for Precision Medicine) Consortium†. Whole Genome Sequence Analysis of the Plasma Proteome in Black Adults Provides Novel Insights Into Cardiovascular Disease. *Circulation*. 2022 Feb;145(5):357-370. doi: 10.1161/CIRCULATIONAHA.121.055117. Epub 2021 Nov 24. PMID: 34814699
 16. Alanazi A, Ivanov A, Kumari N, Lin X, Wang S, Kovalskyy D, **Nekhai S**. Targeting Tat-TAR RNA Interaction for HIV-1 Inhibition. 2021. *Viruses*, 13(10):2004. PMID: PMC8536978.
 17. Luo Y, Kanai M, Choi W, Li X, Sakaue S, Yamamoto K, Ogawa K, Gutierrez-Arcelus M, Gregersen PK, Stuart PE, Elder JT, Forer L, Schönherr S, Fuchsberger C, Smith AV, Fellay J, Carrington M, Haas DW, Guo X, Palmer ND, Chen YI, Rotter JI, Taylor KD, Rich SS, Correa A, Wilson JG, Kathiresan S, Cho MH, Metspalu A, Esko T, Okada Y, Han B; NHLBI Trans-Omics for Precision Medicine (TOPMed) Consortium; McLaren PJ, Raychaudhuri S. A high-resolution HLA reference panel capturing global population diversity enables multi-ancestry fine-mapping in HIV host response. *Nat Genet*. 2021 Oct;53(10):1504-1516. PMID: 34611364 Free PMC article.
 18. Brim H, Taylor J, Abbas M, Vilmenay K, Darempouran M, Varma S, Lee E, Pace B, Song-Naba WL, Gupta K, **Nekhai S**, O'Neil P, Ashktorab H. The gut microbiome in sickle cell disease: Characterization and potential implications. 2021. *PLoS One*, 16(8):e0255956. PMID: PMC8386827.
 19. Cade BE, Lee J, Sofer T, Wang H, Zhang M, Chen H, Gharib SA, Gottlieb DJ, Guo X, Lane JM, Liang J, Lin X, Mei H, Patel SR, Purcell SM, Saxena R, Shah NA, Evans DS, Hanis CL, Hillman DR, Mukherjee S, Palmer LJ, Stone KL, Tranah GJ; NHLBI Trans-Omics for Precision Medicine (TOPMed) Consortium; Abecasis GR, Boerwinkle EA, Correa A, Cupples LA, Kaplan RC, Nickerson DA, North KE, Psaty BM, Rotter JI, Rich SS, Tracy RP, Vasan RS, Wilson JG, Zhu X, Redline S; TOPMed Sleep Working Group. Whole-genome association analyses of sleep-disordered breathing phenotypes in the NHLBI TOPMed program. *Genome Med*. 2021 Aug 26;13(1):136. doi: 10.1186/s13073-021-00917-8. PMID: 34446064 Free PMC article.
 20. **Nekhai, S.**, Lin, X., Soni, S., Taye, A., Smith, N., Afangbedji, N., Saraf, S., Gordeuk, V.R., Taylor, J.G., and Jerebtsova, M. Urinary kringle domain-containing protein

- HGFL: a validated biomarker of early Sickle Cell Anemia-associated kidney disease
2021. Am. J. Nephrol., 52(7): 582-587. PMCID: PMC8458240.
21. Stecher, C., Marinkov, S., Mayr-Harting, L., Katic, A., Kastner, M.T., iederpRommer, F.J., Lin, X., Nekhai, S. and Steininger, C. 2021. Protein phosphatase 1 regulates human cytomegalovirus protein translation by restraining AMPK signaling. *Front.Microbiol.*, 12:698603. PMCID: PMC8320725.
 22. Keramati AR, Chen MH, Rodriguez BAT, Yanek LR, Bhan A, Gaynor BJ, Ryan K, Brody JA, Zhong X, Wei Q; NHLBI Trans-Omics for Precision (TOPMed) Consortium; Kammers K, Kanchan K, Iyer K, Kowalski MH, Pitsillides AN, Cupples LA, Li B, Schlaeger TM, Shuldiner AR, O'Connell JR, Ruczinski I, Mitchell BD, Faraday N, Taub MA, Becker LC, Lewis JP, Mathias RA, Johnson AD. Genome sequencing unveils a regulatory landscape of platelet reactivity. *Nat Commun.* 2021 Jun 15;12(1):3626. doi: 10.1038/s41467-021-23470-9. PMID: 34131117 Free PMC article.
 23. Sofer T, Zheng X, Laurie CA, Gogarten SM, Brody JA, Conomos MP, Bis JC, Thornton TA, Szpiro A, O'Connell JR, Lange EM, Gao Y, Cupples LA, Psaty BM; NHLBI Trans-Omics for Precision Medicine (TOPMed) Consortium; Rice KM. Variant-specific inflation factors for assessing population stratification at the phenotypic variance level. *Nat Commun.* 2021 Jun 9;12(1):3506. doi: 10.1038/s41467-021-23655-2. PMID: 34108454 Free PMC article.
 24. Kasela S, Ortega VE, Martorella M, Garudadri S, Nguyen J, Ampleford E, Pasanen A, Nerella S, Buschur KL, Barjaktarevic IZ, Barr RG, Bleeker ER, Bowler RP, Comellas AP, Cooper CB, Couper DJ, Criner GJ, Curtis JL, Han MK, Hansel NN, Hoffman EA, Kaner RJ, Krishnan JA, Martinez FJ, McDonald MN, Meyers DA, Paine R 3rd, Peters SP, Castro M, Denlinger LC, Erzurum SC, Fahy JV, Israel E, Jarjour NN, Levy BD, Li X, Moore WC, Wenzel SE, Zein J; NHLBI SubPopulations and InteRmediate Outcome Measures In COPD Study (SPIROMICS); NHLBI Trans-Omics for Precision Medicine (TOPMed) Consortium; Langelier C, Woodruff PG, Lappalainen T, Christenson SA. Genetic and non-genetic factors affecting the expression of COVID-19-relevant genes in the large airway epithelium. *Genome Med.* 2021 Apr 21;13(1):66. doi: 10.1186/s13073-021-00866-2. PMID: 33883027 Free PMC article.
 25. Natarajan P, Pampana A, Graham SE, Ruotsalainen SE, Perry JA, de Vries PS, Broome JG, Pirruccello JP, Honigberg MC, Aragam K, Wolford B, Brody JA, Antonacci-Fulton L, Arden M, Aslibekyan S, Assimes TL, Ballantyne CM, Bielak LF, Bis JC, Cade BE, Do R, Doddapaneni H, Emery LS, Hung YJ, Irvin MR, Khan AT, Lange L, Lee J, Lemaitre RN, Martin LW, Metcalf G, Montasser ME, Moon JY, Muzny D, O'Connell JR, Palmer ND, Peralta JM, Peyser PA, Stilp AM, Tsai M, Wang FF, Weeks DE, Yanek LR, Wilson JG, Abecasis G, Arnett DK, Becker LC, Blangero J, Boerwinkle E, Bowden DW, Chang YC, Chen YI, Choi WJ, Correa A, Curran JE, Daly MJ, Dutcher SK, Ellinor PT, Fornage M, Freedman BI, Gabriel S, Germer S, Gibbs RA, He J, Hveem K, Jarvik GP, Kaplan RC, Kardia SLR, Kenny E, Kim RW, Kooperberg C, Laurie CC, Lee S, Lloyd-Jones DM, Loos RJF, Lubitz SA, Mathias RA, Martinez KAV, McGarvey ST, Mitchell BD, Nickerson DA, North KE, Palotie A, Park CJ, Psaty BM, Rao DC, Redline S, Reiner AP, Seo D, Seo JS, Smith AV, Tracy RP, Vasan RS, Kathiresan S, Cupples LA, Rotter JI, Morrison AC, Rich SS, Ripatti S, Willer C; NHLBI Trans-Omics for Precision Medicine (TOPMed) Consortium; FinnGen; Peloso GM. Chromosome Xq23 is associated with lower atherogenic lipid concentrations and favorable cardiometabolic indices. *Nat Commun.* 2021 Apr 12;12(1):2182. doi: 10.1038/s41467-021-22339-1. PMID: 33846329 Free PMC article.
 26. Taliun D, Harris DN, Kessler MD, Carlson J, Szpiech ZA, Torres R, Taliun SAG, Corvelo A, Gogarten SM, Kang HM, Pitsillides AN, LeFaive J, Lee SB, Tian X, Browning BL, Das S, Emde AK, Clarke WE, Loesch DP, Shetty AC, Blackwell TW,

- Smith AV, Wong Q, Liu X, Conomos MP, Bobo DM, Aguet F, Albert C, Alonso A, Ardlie KG, Arking DE, Aslibekyan S, Auer PL, Barnard J, Barr RG, Barwick L, Becker LC, Beer RL, Benjamin EJ, Bielak LF, Blangero J, Boehnke M, Bowden DW, Brody JA, Burchard EG, Cade BE, Casella JF, Chalazan B, Chasman DI, Chen YI, Cho MH, Choi SH, Chung MK, Clish CB, Correa A, Curran JE, Custer B, Darbar D, Daya M, de Andrade M, DeMeo DL, Dutcher SK, Ellinor PT, Emery LS, Eng C, Fatkin D, Fingerlin T, Forer L, Fornage M, Franceschini N, Fuchsberger C, Fullerton SM, Germer S, Gladwin MT, Gottlieb DJ, Guo X, Hall ME, He J, Heard-Costa NL, Heckbert SR, Irvin MR, Johnsen JM, Johnson AD, Kaplan R, Kardia SLR, Kelly T, Kelly S, Kenny EE, Kiel DP, Klemmer R, Konkle BA, Kooperberg C, Köttgen A, Lange LA, Lasky-Su J, Levy D, Lin X, Lin KH, Liu C, Loos RJF, Garman L, Gerszten R, Lubitz SA, Lunetta KL, Mak ACY, Manichaikul A, Manning AK, Mathias RA, McManus DD, McGarvey ST, Meigs JB, Meyers D... See abstract for full author list Sequencing of 53,831 diverse genomes from the NHLBI TOPMed Program. *Nature*. 2021 Feb;590(7845):290-299. doi: 10.1038/s41586-021-03205-y. Epub 2021 Feb 10. PMID: 33568819 Free PMC article.
27. Reiner AP, Raffield LM, Franceschini N, Auer PL, Lange EM, Nickerson DA, Zakai NA, Correa A, Olson N; National Heart, Lung, and Blood Institute Trans-Omics for Precision Medicine Consortium; National Heart, Lung, and Blood Institute Trans-Omics for Precision Medicine Consortium. Effect of Sickle Cell Trait and APOL1 Genotype on the Association of Soluble uPAR with Kidney Function Measures in Black Americans. *Clin J Am Soc Nephrol*. 2021 Feb 8;16(2):287-289. doi: 10.2215/CJN.12100720. Epub 2020 Dec 2. PMID: 33268503 Free PMC article. No abstract available.
28. Bick AG, Weinstock JS, Nandakumar SK, Fulco CP, Bao EL, Zekavat SM, Szeto MD, Liao X, Leventhal MJ, Nasser J, Chang K, Laurie C, Burugula BB, Gibson CJ, Lin AE, Taub MA, Aguet F, Ardlie K, Mitchell BD, Barnes KC, Moscati A, Fornage M, Redline S, Psaty BM, Silverman EK, Weiss ST, Palmer ND, Vasan RS, Burchard EG, Kardia SLR, He J, Kaplan RC, Smith NL, Arnett DK, Schwartz DA, Correa A, de Andrade M, Guo X, Konkle BA, Custer B, Peralta JM, Gui H, Meyers DA, McGarvey ST, Chen IY, Shoemaker MB, Peyser PA, Broome JG, Gogarten SM, Wang FF, Wong Q, Montasser ME, Daya M, Kenny EE, North KE, Launer LJ, Cade BE, Bis JC, Cho MH, Lasky-Su J, Bowden DW, Cupples LA, Mak ACY, Becker LC, Smith JA, Kelly TN, Aslibekyan S, Heckbert SR, Tiwari HK, Yang IV, Heit JA, Lubitz SA, Johnsen JM, Curran JE, Wenzel SE, Weeks DE, Rao DC, Darbar D, Moon JY, Tracy RP, Butch EJ, Rafaels N, Loos RJF, Durda P, Liu Y, Hou L, Lee J, Kachroo P, Freedman BI, Levy D, Bielak LF, Hixson JE, Floyd JS, Whitsel EA, Ellinor PT, Irvin MR, Fingerlin TE, Raffield LM, Armasu SM, Wheeler MM, Sabino EC, Blangero J, Williams LK, Levy BD, Sheu WH, Roden DM, Boerwinkle E, Manson JE, Mathias RA, Desai P, Taylor KD, Johnson AD; NHLBI Tran... See abstract for full author list Inherited causes of clonal haematopoiesis in 97,691 whole genomes. *Nature*. 2020 Oct;586(7831):763-768. doi: 10.1038/s41586-020-2819-2. Epub 2020 Oct 14. PMID: 33057201 Free PMC article.
29. Ogharandunku, E., Tewolde, W., Damtae, E., Wang, S., Ivanov, A., Kumari, N., Nekhai, S and Chanadran P. L. 2020. Establishing rules for self-adhesion and aggregation of N-Glycan sugars using virus glycan shields. *Langmuir*, 36:13769-13783. PMCID: PMC7798417.
30. Li X, Li Z, Zhou H, Gaynor SM, Liu Y, Chen H, Sun R, Dey R, Arnett DK, Aslibekyan S, Ballantyne CM, Bielak LF, Blangero J, Boerwinkle E, Bowden DW, Broome JG, Conomos MP, Correa A, Cupples LA, Curran JE, Freedman BI, Guo X, Hindy G, Irvin MR, Kardia SLR, Kathiresan S, Khan AT, Kooperberg CL, Laurie CC, Liu XS, Mahaney MC, Manichaikul AW, Martin LW, Mathias RA, McGarvey ST, Mitchell BD, Montasser ME, Moore JE, Morrison AC, O'Connell JR, Palmer ND, Pampana A, Peralta JM, Peyser PA, Psaty BM, Redline S, Rice KM, Rich SS,

- Smith JA, Tiwari HK, Tsai MY, Vasan RS, Wang FF, Weeks DE, Weng Z, Wilson JG, Yanek LR; NHLBI Trans-Omics for Precision Medicine (TOPMed) Consortium; TOPMed Lipids Working Group; Neale BM, Sunyaev SR, Abecasis GR, Rotter JI, Willer CJ, Peloso GM, Natarajan P, Lin X. Dynamic incorporation of multiple *in silico* functional annotations empowers rare variant association analysis of large whole-genome sequencing studies at scale. *Nat Genet.* 2020 Sep;52(9):969-983. doi: 10.1038/s41588-020-0676-4. Epub 2020 Aug 24. PMID: 32839606 Free PMC article.
31. Lin, X., Sajith, A. M., Wang, S., Kumari, N., Choy, M.S., Ahmad, A., Cadet, D. R., Gu, X., Ivanov, A. I., Peti, W., Kulkarni, A., and **Nekhai, S.** 2020. Structural Optimization of 2,3-dihydro-1H-cyclopenta[b]quinolines Targeting the Non-catalytic RVxF Site of Protein Phosphatase 1 for HIV-1 Inhibition. *ACS Infectious Diseases,* 6(12):3190-3211. PMCID: PMC7769123.
 32. Niu, X., Parry, C.S., Mason, A., Harrison, B., Nouraie, S. M., Ammosova, T., Salomon-Andonie, J., Oneal P.A., Gordeuk, V.R., Taylor VI, J. G. and **Nekhai, S.** 2020. Prevalence of Sickle Cell Trait and Rare Hemoglobin Variants in the Metropolitan Washington DC Area. *The Journal of Hematology,* 9(3):93-95.
 33. Zhang X, Song J, Shah BN, **Nekhai S**, Miasnikova G, Sergueeva A, Prchal JT, Gordeuk VR. 2020. Peripheral blood mononuclear cells show prominent gene expression by erythroid progenitors in diseases characterized by heightened erythropoiesis. *Br. J Haematol.* 2020 190(1):e42-e45. PMID: 32399971.
 34. Jerebtsova M, Taye A, Smith N, Afangbedji N, Stokes D, Niu X, Diaz S, Taylor JG 6th, **Nekhai S.** 2020. Association between plasma and urinary orosomucoid and chronic kidney disease in adults with sickle cell disease. *Br J Haematol.* 190(1):e45-e48. PMID: 32372411.
 35. Nouraie M, Darbari DS, Rana S, Minniti CP, Castro OL, Luchtman-Jones L, Sable C, Dham N, Kato GJ, Gladwin MT, Ensing G, Arteta M, Campbell A, Taylor JG 6th, **Nekhai S**, Gordeuk VR. 2020. Tricuspid regurgitation velocity and other biomarkers of mortality in children, adolescents and young adults with sickle cell disease in the United States: The PUSH study. *Am J Hematol.* 2020 95(7):766-774. PMID: 32243618.
 36. Zhang X, Shah BN, Zhang W, Saraf SL, Nouraie M, **Nekhai S**, Machado RF, Gladwin MT, Gordeuk VR. 2020. S100B has pleiotropic effects on vaso-occlusive manifestations in sickle cell disease. *Am J Hematol.* 95(3):E62-E65. PMC7326008
 37. Kessler MD, Loesch DP, Perry JA, Heard-Costa NL, Taliun D, Cade BE, Wang H, Daya M, Zinati J, Datta S, Celedón JC, Soto-Quiros ME, Avila L, Weiss ST, Barnes K, Redline SS, Vasan RS, Johnson AD, Mathias RA, Hernandez R, Wilson JG, Nickerson DA, Abecasis G, Browning SR, Zöllner S, O'Connell JR, Mitchell BD; National Heart, Lung, and Blood Institute Trans-Omics for Precision Medicine (TOPMed) Consortium; TOPMed Population Genetics Working Group; O'Connor TD. De novo mutations across 1,465 diverse genomes reveal mutational insights and reductions in the Amish founder population. *Proc Natl Acad Sci U S A.* 2020 Feb 4;117(5):2560-2569. doi: 10.1073/pnas.1902766117. Epub 2020 Jan 21. PMID: 31964835 Free PMC article.
 38. Liu, W., Zhang, S, **Nekhai, S.** and Liu, S. Depriving iron supply to the virus represents a promising adjuvant therapeutics against viral survival. *Cur. Clin. Microbiol. Rep.* 2020, 7:13-19.
 39. Jerebtsova M, Ahmad A, Kumari N, Rutagarama O, **Nekhai S.** Macrophage HIV-1 Gene Expression and Delay Resolution of Inflammation in HIV-Tg Mice. *Viruses.* 2020 12(3). pii: E277. PMID: 32121564.
 40. 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; 12(2). pii: E204. PMCID: PMC7077267.

41. Younan P, Santos RI, Ramanathan P, Iampietro M, Nishida A, Dutta M, Ammosova T, Meyer M, Katze MG, Popov VL, **Nekhai S**, Bukreyev A. Ebola virus-mediated T-lymphocyte depletion is the result of an abortive infection. *PLoS Pathog.* 2019; 15(10):e1008068. PMC6812753
42. Shaw H, Pattabiraman N, Preston D, Ammosova T, Obukhov Y, **Nekhai S** and Kumar A. Information theory and signal processing methodology to identify nucleic acid-protein binding sequences in RNA-protein interactions. Annual Conference on Information Science and Systems (CISS). 2019. page 1-6.
43. Ivanov A, Ramanathan P, Parry C, Ilinykh PA, Lin X, Petukhov M, Obukhov Yu, Ammosova T, Amarasinghe GK, Bukreyev A, and **Nekhai S**. 2020. Global phosphoproteomic analysis of Ebola virions reveal a novel role for VP35 phosphorylation-dependent regulation of genome transcription. *Cell. Mol. Life Sci.* 77(13):2579-2603, PMC7101265.
44. Kachroo P, Hecker J, Chawes BL, Ahluwalia TS, Cho MH, Qiao D, Kelly RS, Chu SH, Virkud YV, Huang M, Barnes KC, Burchard EG, Eng C, Hu D, Celedón JC, Daya M, Levin AM, Gui H, Williams LK, Forno E, Mak ACY, Avila L, Soto-Quiros ME, Cloutier MM, Acosta-Pérez E, Canino G, Bønnelykke K, Bisgaard H, Raby BA, Lange C, Weiss ST, Lasky-Su JA; National Heart, Lung, and Blood Institute Trans-Omics for Precision Medicine (TOPMed) Consortium. Whole Genome Sequencing Identifies CRISPLD2 as a Lung Function Gene in Children With Asthma. *Chest.* 2019 Dec;156(6):1068-1079. doi: 10.1016/j.chest.2019.08.2202. Epub 2019 Sep 23. PMID: 31557467 Free PMC article.
45. Lin X, Ammosova T, Choy MS, Pietzsch CA, Ivanov A, Ahmad A, Saygideğər Y, Kumari N, Kovalsky D, Üren A, Peti W, Bukreyev A, and **Nekhai S**. Targeting the Non-catalytic RVxF Site of Protein Phosphatase-1 With Small Molecules for Ebola Virus Inhibition. *Frontiers in Microbiology.* 2019;10(2145).
46. Dokekias, AE, Ngolet, L., Alomon-Andonie, J., **Nekhai, S.** and Taylor, JG 6th. Establishing a national sickle cell disease program in the Republic of Congo. *Blood Adv.*, 2 (suppl 1): 17-18. PMID:30504190
47. Tigabu, B., Ramanathan, P., Ivanov, A., Lin, X., Ilinykh, P.A., Parry, C.S., Freiberg, A.N., **Nekhai, S.**, and Bukreyev, A. 2018. Phosphorylated VP30 of Marburg Virus is a repressor of transcription. *J. Virol.*, 92 (21) :e00426-18. PMC6189487
48. Ammosova T., Pietzsch C. A., Saygideğər Y, Ilatovsky A, Lin X, Ivanov A, Kumari N., Jerebtsova M., Kulkarni A., Petukhov M., Üren A., Bukreyev A., and **Nekhai S**. 2018. Protein phosphatase-1-targeting small molecule C31 inhibits Ebola virus replication. *Journal Infect. Disease*, 218:S627-S635. PMCID: PMC6249606.
49. Ivanov A., Lin X, Ammosova T, Ilatovskiy AV, Kumari N, Lassiter H, Afangbedji N, Niu X, Petukhov M G, and **Nekhai S**. 2018. HIV-1 Tat phosphorylation on Ser-16 residue modulates HIV-1 transcription. *Retrovirology*, 15:39. PMC5966876
50. Du M., Van Ness S, Gordeuk V, Nouraei SM, **Nekhai S**, Gladwin M, Steinberg MH, Sebastiani P. Biomarker signatures of sickle cell disease severity. *Blood Cells Mol Dis.* 2018 May 16. pii: S1079-9796(18)30173-6. PMID:29778312
51. Carey BD, Ammosova T, Pinkham C, Lin X, Zhou W, Liotta LA, **Nekhai S**, Kehn-Hall K. 2018. Protein Phosphatase 1 α interacts with Venezuelan Equine Encephalitis Virus capsid protein and regulates viral replication through modulation of capsid phosphorylation. *J. Virol.*, 92(15):e02068-17. PMC6052284
52. Khaibullina A, Adjei EA, Afangbedji N, Ivanov A, Kumari N, Almeida LEF, Quezado ZMN, **Nekhai S**, Jerebtsova M. 2018. RON kinase inhibition reduces renal endothelial injury in sickle cell disease mice. *Haematologica.* 103(5):787-798. PMCID: PMC5927980.

53. Richard CA, Rincheval V, Lassoued S, Fix J, Cardone C, Esneau C, **Nekhai S**, Galloux M, Rameix-Welti MA, Sizun C, Eléouët JF. 2018. RSV hijacks cellular protein phosphatase 1 to regulate M2-1 phosphorylation and viral transcription, *PLoS Pathog.* 14(3):e1006920. PMC5847313
54. Jerebtsova, M., Saraf S., Soni, S., Afangbedji N., Lin X., Raslan R., Gordeuk VR. and **Nekhai, S.** 2018. Urinary orosomucoid is associated with progressive chronic kidney disease stage in patients with Sickle Cell anemia. *Am.J. Hematol.* 93(4):E107-E109. PMID:29327376
55. Jerebtsova M., Saraf S., Lin X., Lee G., Adjei EA, Kumari N., Fangbedji N., Raslan R., McLean C., Gordeuk VR. and **Nekhai, S.** 2018. Identification of ceruloplasmin as a biomarker of chronic kidney disease in urine of sickle cell disease patients by proteomic analysis. *Am.J. Hematol.* 93(2):E45-E47 PMID:29127684.
56. Natarajan P, Peloso GM, Zekavat SM, Montasser M, Ganna A, Chaffin M, Khera AV, Zhou W, Bloom JM, Engreitz JM, Ernst J, O'Connell JR, Ruotsalainen SE, Alver M, Manichaikul A, Johnson WC, Perry JA, Poterba T, Seed C, Surakka IL, Esko T, Ripatti S, Salomaa V, Correa A, Vasan RS, Kellis M, Neale BM, Lander ES, Abecasis G, Mitchell B, Rich SS, Wilson JG, Cupples LA, Rotter JI, Willer CJ, Kathiresan S; NHLBI TOPMed Lipids Working Group. Deep-coverage whole genome sequences and blood lipids among 16,324 individuals. *Nat Commun.* 2018 Aug 23;9(1):3391. doi: 10.1038/s41467-018-05747-8. PMID: 30140000 F
57. Zekavat SM, Ruotsalainen S, Handsaker RE, Alver M, Bloom J, Poterba T, Seed C, Ernst J, Chaffin M, Engreitz J, Peloso GM, Manichaikul A, Yang C, Ryan KA, Fu M, Johnson WC, Tsai M, Budoff M, Vasan RS, Cupples LA, Rotter JI, Rich SS, Post W, Mitchell BD, Correa A, Metspalu A, Wilson JG, Salomaa V, Kellis M, Daly MJ, Neale BM, McCarroll S, Surakka I, Esko T, Ganna A, Ripatti S, Kathiresan S, Natarajan P; NHLBI TOPMed Lipids Working Group. Deep coverage whole genome sequences and plasma lipoprotein(a) in individuals of European and African ancestries. *Nat Commun.* 2018 Jul 4;9(1):2606. doi: 10.1038/s41467-018-04668-w. PMID: 29973585 Free PMC article.
58. Lin, X, Kumari, N., DeMarino, C., Kont, Y.S., Ammosova, T., Kulkarni, A., Jerebtsova, M., Vazquez-Meves, G., Ivanov, A., Kovalskyy, D., Üren, A., Kashanchi, F., and **Nekhai S.** 2017. Inhibition of HIV-1 infection in humanized mice and metabolic stability of protein phosphatase-1-targeting small molecule 1E7-03. *Oncotarget*, 8:76749-76769. PMC5652740.
59. Lin X, Ammosova T, Kumari N, **Nekhai S.** 2017. Protein Phosphatase-1 -targeted Small Molecules, Iron Chelators and Curcumin Analogs as HIV-1 Antivirals. *Curr Pharm Des*, 23: 4122-4132. PMC5700866
60. Kumari, N., Ammosova, T., Diaz, S., Lin, X., Niu, X., Ivanov, A., Jerebtsova, M., Dhawan, S., Oneal, P., **Nekhai, S.** 2016. Increased Iron Export by Ferroportin Induces Restriction of HIV-1 Infection in Sickle Cell Disease. *Blood Advances*, 1: 170-183. PMCID: PMC5304912.
61. Dai Y, Sangerman J, Nouraie M, Faller AD, Oneal P, Rock A, Owoyemi O, Niu X, **Nekhai S**, Maharaj D, Cui S, Taylor R, Steinberg M, Perrine S. 2017. Effects of hydroxyurea on F-cells in Sickle Cell Disease and potential impact of a second fetal globin inducer. *Am. J. Hematol.*, 92: E10-E11. PMC5167623.

62. Fluit M.B., Kumari N., Nunlee-Bland G., **Nekhai S.**, and Gambhir K. K. 2016. miRNA-15a, miRNA-15b and miRNA-499 are reduced in erythrocytes of pre-diabetic African-American adults. *Jacobs J of Diabetes and Endocrinology*, 2(1):014.
63. Ammosova, T., Washington K., Rotimi J., Kumari N., Smith K., Niu X., Jerebtsova M., and **Nekhai S.** 2016. Protein phosphatase-1 regulates expression of neuregulin-1. *Biology*, 5(4), pii:E49. PMID 27918433.
64. Pleet, M. L., Mathiesen, A., DeMarino, C., Akpamagbo, Y.A., Barclay, R. A., Schwab, A., Iordansky, S., Sampey, G.C., Lepene, B., **Nekhai, S.**, Aman, M.J., and Kashanchi, F. 2016. Ebola VP40 in Exosomes can cause immune cell dysfunction. *Front. Microbiol.* 7:1765. PMCID5098130
65. Huang, H., Konduru, K., Solovena, V., Zhou, Z.-H., Kumari, N., Takeda, K., **Nekhai, S.**, Bavari, S., Kaplan, G.G., Yamada, K. M., and Dhawan, S. 2016. Therapeutic potential of the heme oxygenase-1 inducer hemin against Ebola virus infection. *Curr. Trend Immunol.*, 17:117-123.
66. Zhang X, Shah BN, Zhang W, Saraf SL, Miasnikova G, Sergueeva A, Ammosova T, Niu X, Nouraie M, **Nekhai S**, Castro O, Gladwin MT, Prchal JT, Garcia JG, Machado RF, Gordeuk VR. 2016. A genetic variation associated with plasma erythropoietin and a non-coding transcript of PRKAR1A in sickle cell disease. *Hum. Mol. Genet.*, 25:4601-4609.
67. Santos S, Obukhov Y, **Nekhai S**, Pushkarsky T, Brichacek B, Bukrinsky M, Iordanskiy S. 2016. Cellular minichromosome maintenance complex component 5 (MCM5) is incorporated into HIV-1 virions and modulates viral replication in the newly infected cells. *Virology* 497:11-22.
68. Ogunwuyi O, Kumari N, Smith KA, Bolshakov O, Adesina S, Gugssa A, Anderson WA, **Nekhai S** and Akala EO. 2016. Antiretroviral Drugs-Loaded Nanoparticles Fabricated by Dispersion Polymerization with Potential for HIV/AIDS Treatment. *Infect Dis (Auckl)*.9:21-32. 2016.PMCID:PMC4803317
69. Baer A, Shafagati N, Benedict A, Ammosova T, Ivanov A, Hakami RM, Terasaki K, Makino S, **Nekhai S**, Kehn-Hall K. 2016. Protein Phosphatase-1 regulates Rift Valley fever virus replication. *Antiviral Res.* 127:79-89. PMC4784696
70. Tyagi, M., Iordanskiy, S., Ammosova, T., Kumari, N., Smith, K., Breuer, D., Ilatovskiy, A. V., Kont, Y., Ivanov, A., Üren, A., Kovalskyy, D., Petukhov, M., Kashanchi, F. and **Nekhai, S.** 2015. Reactivation of latent HIV-1 provirus via targeting protein phosphatase-1. *Retrovirology*, 12:63 PMC4504130
71. Smith, K.A., Lin, X., Bolshakov, O., Griffin, J., Niu, X., Kovalsky, D., Ivanov, A., Jerebtsova, M., Taylor, R.E., Akala, E., and **Nekhai, S.** 2015. Activation of HIV-1 with nanopartilce-packaged small-molecule protein phosphatase-1-targeting compound. *Sci. Pharm.*, 83:535-538. PMC4727795
72. Kumari, N., Kulkarni, A., Lin, X., McLean, C., Ammosova, T., Ivanov, A., Hippolito, M., **Nekhai, S** and Nwulia, E. 2015. Inhibition of HIV-1 by curcumin A, a novel curcumin analog. *Drug Des Devel Ther.* 9:5051-5060. PMC4562762
73. Zhang, X., Zhang, W., Saraf, S.L., Nouraie, M., Han, J., Gowhari, M., Hassan, J., Miasnikova, G., Sergueeva, A., **Nekhai, S.**, Kittles, R., Machado, R.F., Garcia, J.G., Gladwin, M.T., Steinberg, M.H., Sebastiani, P., McClain, D.A., Gordeuk, V.R. 2015. *Hum. Genet.* 134: 895-904. PMC4607040
74. Kassim, O.O., Copeland, R.L., Kenguele, H.M., **Nekhai, S.**, Ako-Nai, K.A., Kanaan, Y.M. 2015. Antiproliferative activities of Fagara xanthoxyloides and Pseudocedrela kotschyii against prostate cancer cell lines. *Anticancer Res.* 2015 35:1453-1458. PMC4669679
75. van Beers E, Yang Y, Raghavachari N, Tian X, Allen DT, Nichols JS, Mendelsohn L,

- Nekhai S**, Gordeuk VR, Taylor JG, Kato GJ. 2015. Iron, Inflammation, and Early Death in Adults with Sickle Cell Disease. *Circ Res.* 116:298-306. PMC4297524
76. Jerebtsova, M. and **Nekhai S**. 2015. Therapeutics for postexposure treatment of Ebola virus infection. *10* (3): 221-232. PMC4508675
77. Ammosova, T., Egorov, A.S., Fedorova E.V., Avrushin S.L., Santimov A.V. and **Nekhai, S**. 2014. Prevalence of the CCR5 delta 32 mutation in the tundra Nenets of Yamal. *Pediatrician* 5 (4): 65-69.
78. Fedorova, E. V., Egorov, A.S., Ammosova T., Abrushin S. L., Santimov A. V., Kostik M. M., Dubko M. F., kalashnikova O V., Masalova V. V., Likhacheva T.S., Snegirina L. S., Grom A. A., **Nekhai S**, and Chasnuk V. G. 2014. Hypothesis about the protective role of CCR5delta32 mutation in juvenile idiopathic arthritis: fiction or reality? *Pediatrician* 5 (4): 53-39.
79. Kumari, N., Iordanskiy, S., Kovalskyy, D., Breuer, D., Niu, X., Lin, X., Xu, M., Gavrilenko, K., Kashanchi, F., Dhawan, S., and **S. Nekhai**. 2014. Phenyl-1-pyridin-2yl-ethanone (PPY)-based iron chelators increase IKBa expression, modulate CDK2 and CDK9 activities and inhibit HIV-1 transcription. *Antimicrob. Agents Chemother.*, 58(11):6558-71. PMC4249367
80. Ammosova, T., Platonov, M., Ivanov, A., Kont, Y.S., Kumari, N., Kehn-Hall, K., Jerebtsova, M., Kulkarni, A.K., Üren, A., Kovalskyy, D., and **S. Nekhai**. 2014. 1E7-03, a Small Molecule Targeting Host Protein Phosphatase-1, Inhibits HIV-1 Transcription. *British J. Pharmacol.*, 171(22):5059-75. PMC4253456
81. Ilinykh, P.A., Tigabu, B., Ivanov, A., Ammosova, T., Obukhov, Y., Garron, T., Kumari, N., Kovalskyy, D., Platonov, M. O., Naumchik, V.S., Freiberg, A.N., **Nekhai, S.**, and A.Bukreyev. 2014. Role of Protein Phosphatase 1 in Dephosphorylation of Ebola Virus VP30 and its Targeting for the Inhibition of Viral Transcription. *J. Biol. Chem.*, 289(33):22723-38.PMC4132779
82. Zhang X, Zhang W, Ma SF, Desai AA, Saraf S, Miasnikova G, Sergueeva A, Ammosova T, Xu M, **Nekhai S**, Abbasi T, Casanova NG, Steinberg MH, Baldwin CT, Sebastiani P, Prchal JT, Kitchens R, Garcia JG, Machado RF, Gordeuk VR. 2014. The Hypoxic Response Contributes to Altered Gene Expression and Pre-Capillary Pulmonary Hypertension in Patients with Sickle Cell Disease. *Circulation*. 129(16):1650-8.
83. Jerebtsova, M. and **Nekhai S**. 2014. Quantitative mass spectrometry of urinary biomarkers. *J Integr OMICS*. 2014 Dec 1;4(2):69-78. PMCID: PMC4429296.
84. **Nekhai, S.**, Petukhov, M., and Breuer, D. 2014. Regulation of CDK9 activity by phosphorylation and dephosphorylation. *BioMed Research International*. 2014: 964964 , PMC3913462
85. Ashenafi, M., Ammosova, T., **Nekhai, S.**, and Byrnes, W.M. 2014. Purification and characterization of aminoglycoside phosphotransferase APH(6)-Id, a streptomycin-inactivating enzyme. *Mol. Cell. Biochem.* 387:207-216. PMC3942886
86. Zhang, X., Zhang, W., Ma, S.F., Miasnikova G, Sergueeva A, Ammosova T, Xu M, **Nekhai, S.**, Nouraie, M., Wade, M.S., Prchal, J. T., Garcia, J.G., Machado, R. F., and Gordeuk, V.R. 2014. Iron deficiency modifies gene expression variation induced by augmented hypoxia sensing. *Blood Cells Mol Dis.* 52:35-45. PMC3852195
87. **Nekhai, S.**, Kumari, N., and Dhawan, S. 2013. Role of cellular iron and oxygen in the regulation of HIV-1 infection. *Future Virol.*, 8:301-311. PMC3652425
88. Salomon-Andonie J, Miasnikova G, Sergueeva A, Polyakova LA, Niu, X., **Nekhai S.**, and Gordeuk, V.R. 2013. Effect of congenital upregulation of hypoxia inducible factors on percentage of fetal hemoglobin in the blood. *Blood*, 122:3088-9. PMC3811180
89. Tomasic NL, Piterkova L, Huff C, Bilic E, Yoon D, Miasnikova GY, Sergueeva AI, Niu X, **Nekhai S**, Gordeuk V, Prchal JT. 2013.The phenotype of polycythemia due to Croatian homozygous VHL (571C>G:H191D) mutation is different from that of

- Chuvash polycythemia (VHL 598C>T:R200W). *Haematologica* 98: 560-567. PMC3659987
90. Zhou ZH, Kumari N, **Nekhai S**, Clouse KA, Wahl LM, Yamada KM, Dhawan S. 2013. Heme oxygenase-1 induction alters chemokine regulation and ameliorates human immunodeficiency virus-type-1 infection in lipopolysaccharide-stimulated macrophages. *Biochem. Biophys. Res. Commun.* 435: 373-377. PMID:23665328
 91. Van Duyne R, Guendel I, Jaworski E, Sampey G, Klase Z, Chen H, Zeng C, Kovalskyy D, El Kouni MH, Lepene B, Patanarut A, **Nekhai S**, Price DH, Kashanchi F. 2013. Effect of mimetic CDK9 inhibitors on HIV-1 activated transcription. *J. Mol. Biol.*, 425:812-829.
 92. **Nekhai, S.**, Xu, M., Foster, A., Kasvosve, I., Diaz, S., Machado, R. F., Castro, O.L., Kato, G. J., Taylor, VI, J.G. and Gordeuk, V.R. 2013. Reduced sensitivity of the ferroportin Q248H mutant to physiologic concentrations of hepcidin. *Haematologica*, 98:455-463.
 93. Breuer D, Kotelkin A, Ammosova T, Kumari N, Ivanov A, Ilatovskiy AV, Beullens M, Roane PR, Bollen M, Petukhov MG, Kashanchi F, **Nekhai S**. 2012. CDK2 regulates HIV-1 transcription by phosphorylation of CDK9 on Serine 90. *Retrovirology*. 9:94. PMCID: PMC3515335.
 94. Jerebtsova M, Kumari N., Obukhov Y, and **Nekhai S**. 2012. Adenoviral E4 gene stimulates secretion of PEDF that maintains long-term survival of human glomerulus-derived endothelial cells. *Mol. Cell. Proteomics*. 11:1378-88. PMCID: PMC3494188.
 95. Santos S., Obukhov Y., **Nekhai S.**, Bukrinsky M., and Iordanskiy S. 2012. Virus producing cells determine the host protein profiles of HIV-1 virion cores. *Retrovirology* 9:65
 96. Debebe Z., **Nekhai S.**, Ashenafi M., Lovejoy D. B., Kalinowski D.S., Gordeuk V.R., Byrnes W. M., Richardson D.R., and Karla P.K.. 2012. Development of a sensitive HPLC method to measure in-vitro permeability of E- and Z-Isomeric forms of thiosemicarbazones in Caco-2 Monolayers. *Journal of Chromatography B*. 906:25-32.
 97. Jerebtsova, M., Kumari, N., Xu, M., Brito Albim de Melo, G., Niu, X., Jeang K.-T., **Nekhai, S.** 2012. HIV-1 Resistant CDK2-Knockdown Macrophage-Like Cells Generated from 293T Cell-Derived Human Induced Pluripotent Stem Cells. *Biology*, 1(2) 175-195. PMCID: PMC3427948.
 98. Narayanan A, Sampey G, Van Duyne R, Guendel I, Kehn-Hall K, Roman J, Currer R, Galons H, Oumata N, Joseph B, Meijer L, Caputi M, **Nekhai S**, Kashanchi F. 2012. Use of ATP analogs to inhibit HIV-1 transcription. *Virology*. 432(1):219-231.
 99. Nouraie, M., **Nekhai, S.**, and Gordeuk VR. 2012. Sickle cell disease is associated with decreased HIV but higher HBV and HCV comorbidities in US hospital discharge records: a cross-sectional study. *Sex. Trasm. Infect.* 88(7):528-33. Epub 2012 May 24. PMID:22628662
 100. Ammosova, T., Platonov, M., Yedavalli, V.R.K, Gordeuk, V.R., Jeang, K-T., Kovalskyy, D., and **Nekhai S**. 2012. Protein phosphatase-1-targeted small molecule inhibitor of HIV-1. *PLoS One*, 7(6):e39481.
 101. Gordeuk VR, Miasnikova GY, Sergueeva AI, Niu X, Nouraie M, Okhotin DJ, Polyakova LA, Ammosova T, **Nekhai S**, Ganz T, and Prchal JT. 2011. Chuvash polycythemia VHLR200W mutation is associated with downregulation of hepcidin expression. *Blood*, 118:5278-82.
 102. Van Duyne R, Guendel I, Narayanan A, Gregg E, Shafagati N, Tyagi M, Easley R, Klase Z, **Nekhai S**, Kehn-Hall K, Kashanchi F. 2011. Varying modulation of HIV-1 LTR activity by Baf complexes. *J. Mol. Biol.* 411:581-596.
 103. Ammosova, T., Obukhov Y., Kotelkin, A., Breuer, D., Beullens, M., Gordeuk, V. R., Bollen, M. and **Nekhai S**. 2011. Protein Phosphatase-1 Activates CDK9 by Dephosphorylating Ser175. *PLOS One*, 6(4): e18985.

104. Thuma PE, van Dijk J, Bucala R, Debebe Z, **Nekhai S**, Kuddo T, Nouraie M, Weiss G, Gordeuk VR. Distinct clinical and immunologic profiles in severe malarial anemia and cerebral malaria in Zambia. *J Infect Dis.* 2011; 203:211-9.
105. Ammosova, T., Yedavalli, V.R.K., Niu, X., Jerebtsova, M., Van Eynde, A., Beullens, M., Bollen, M., Jeang, K.-T., and **Nekhai S.** 2011. Expression of PP1 inhibitor, cdNIPP1, increases CDK9 Thr186 phosphorylation and inhibits HIV-1 transcription. *J. Biol. Chem.*, 286:3798-804. PMCID: PMC3030381.
106. Debebe Z, Ammosova T, Breuer D, Lovejoy D, Kalinowski D, Karla P, Kumar K, Jerebtsova M, Ray P, Kashanchi F, Gordeuk V, Richardson DR, **Nekhai S.** 2011. Iron chelators of the DpT and BpT series inhibit HIV-1 transcription: identification of novel Cellular Targets - Iron, CDK2 and CDK9. *Mol Pharmacol.*, 79:185-96. PMCID: PMC3014282.
107. 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, and **Nekhai S.** 2011. Mass spectrometry and biochemical analysis of RNA polymerase II: targeting by protein phosphatase-1. *Mol Cell Biochem.*, 347:79-87.
108. Xu, M., Kashanchi, F., Foster, A., Rotimi, J., Turner, W., Gordeuk, V. R., and **Nekhai S.** 2010. Hepcidin Induces HIV-1 Transcription Inhibited by Ferroportin. *Retrovirology*, 7:104.
109. Kasvosve, I., Debebe, Z., **Nekhai S.**, and Gordeuk V.R. 2010. Ferroportin (SLC40A1) Q248H mutation is associated with lower circulating plasma tumor necrosis factor-alpha and macrophage migration inhibitory factor concentrations in African children. *Clin Chim Acta*. 411:1248-52
110. Gordeuk, V.R., Campbell, A., Rana, S., Nouraie, M., Niu, X., Minniti. C.P., Sable, C., Darbari, D., Dham, N., Onyekwere, I., Ammosova, T., **Nekhai, S.**, Kato, G.J., Galdwin, M.T., and O. L. Castro. 2009. Relationship of erythropoietin, fetal hemoglobin, and hydroxyurea treatment to tricuspid regurgitation velocity in children with sickle cell disease. *Blood*. 114:4639-4644.
111. Charles, S., Ammosova, T., Cardenas, J., Foster, A., Rotimi, J., Jerebtsova, M., Ayodeji, A. A., Niu, X., Ray, P.E., Gordeuk, V.R., Kashanchi, F., and **S. Nekhai** 2009. Regulation of HIV-1 transcription at 3% versus 21% oxygen concentration. *J. Cell. Physiol* , 221:469-479.
112. Niu X, Miasnikova GY, Sergueeva AI, Polyakova LA, Okhotin DJ, Tuktanov NV, Nouraie M, Ammosova T, **Nekhai S**, Gordeuk VR. 2009. Altered cytokine profiles in patients with Chuvash polycythemia. *Am J Hematol.* 84:74-78
113. Gordeuk, V.R., Diaz, S.F., Onojobi, G.O, Kasvosve, I., Debebe, Z., Edossa, A., Pantin, J.M., Xiong, S., **Nekhai, S.**, Nouraie, M., Tsukamoto, H., and Taylor, R.E. 2008. Ferroportin Q248H, dietary iron, and serum ferritin in community African-Americans with low to high alcohol consumption. *Alcohol. Clin. Exp. Res.* 32:1947-1953
114. Berro, R., Pedati, C., Kehn-Hall, K., Wu, W., Klasem Z., Even, Y., Genevière, A.M., Ammosova, T., **Nekhai, S.** and F. Kashanchi. 2008. CDK13: a new potential HIV-1 inhibitory factor regulating viral mRNA splicing. *J Virol.*, 82:7155-7166
115. Adelina I. Sergueeva, A.I., Miasnikova, G. Y., Okhotin, D. J., Levina, A.A., Debebe, Z., Ammosova, T., Niu, X., Romanova, E.A., **Nekhai, S.**, DiBello, P.M., Jacobsen, D.W., Prchal, J.T., and V. R. Gordeuk. 2008. Elevated homocysteine, glutathione and cysteinylglycine concentrations in patients homozygous for the Chuvash polycythemia VHL mutation. *Haematologica*, 93: 279-282.
116. Debebe, Z., Ammosova., T., Jerebtsova, M., Kurantsin-Mills, J., Niu, X., Charles, S.,Richardson, D. R., Ray, P.E., Goredeuk, V.R., and **S. Nekhai**. 2007. Iron chelators ICL670 and 311 inhibit HIV-1 transcription. *Virology*, 36:324-333.

117. **Nekhai, S.**, Bhat, U. G., Ammosova, T., Jerebtsova, M., Niu, X., Radhakrishnan, S. K., Foster, A., Layden, T. J., and A. L. Gartel. 2007. A novel anti-cancer agent ARC antagonizes HIV-1 and HCV. *Oncogene*, 26:3899-903.
118. **Nekhai, S.** Jerebtsova, M., Jackson, A., and W. Southerland. 2007. Regulation of HIV-1 Transcription by protein phosphatase-1. *Curr HIV Res.* 5: 3-9.
119. Ammosova, T., R. Berro, M. Jerebtsova, A. Jackson, S. Charles, Z. Klase, W. Southerland, V. R. Gordeuk, F. Kashanchi, and **S. Nekhai**. 2006. Phosphorylation of HIV-1 Tat by CDK2 in HIV-1 transcription. *Retrovirology* 3:78.
120. Epie, N., Ammosova, T., Turner, W., and **S. Nekhai**. 2006. Inhibition of PP2A by LIS1 increases HIV-1 gene expression. *Retrovirology*. 3:65.
121. Bushuev, V. I., G. Y. Miasnikova, A. I. Sergueeva, L. A. Polyakova, D. Okhotin, Z. Debebe, **S. Nekhai**, O. L. Castro, J. T. Prchal, and V. R. Gordeuk. 2006. Endothelin-1, vascular endothelial growth factor and systolic pulmonary artery pressure in patients with Chuvash polycythemia. *Haematologica* 91:744-9.
122. Kasvosve, I., Z. A. Gomo, K. J. Nathoo, P. Matibe, B. Mudenge, M. Loyevsky, **S. Nekhai**, and V. R. Gordeuk. 2006. Association of serum transferrin receptor concentration with markers of inflammation in Zimbabwean children. *Clin Chim Acta* 371:130-6.
123. Pumfery, A., C. de la Fuente, R. Berro, **S. Nekhai**, F. Kashanchi, and S. H. Chao. 2006. Potential use of pharmacological cyclin-dependent kinase inhibitors as anti-HIV therapeutics. *Curr Pharm Des* 12:1949-61.
124. **Nekhai, S.**, and K.-T. Jeang. 2006. Transcriptional and posttranscriptional regulation of gene expression: role of cellular factor. *Future Microbiology*, 4:417-426.
125. **Nekhai, S.** and Jerebtsova M. 2006. Therapies for HIV-1 with RNAi. *Curr. Opin. Mol. Ther.* 8:52-61.
126. Ammosova, T., Jerebtsova, M., Beullens, M., Lesage, B., Jackson, A., Kashanchi, F., Southerland, W., Gordeuk, V.R., Bollen, M., and **Nekhai, S.** 2005. Nuclear targeting of protein phosphatase-1 by HIV-1 Tat protein. *J. Biol. Chem.* 280:36364-36367.
127. Ammosova, T., Berro, R., Kashanchi, F., and **Nekhai, S.** 2005. RNA interference directed to CDK2 inhibits HIV-1 transcription. *Virology*, 341:171-178.
128. Ammosova, T., Washington, K., Debebe, Z., Brady, J., and **Nekhai, S.** 2005. Dephosphorylation of CDK9 by protein phosphatase 2A and protein phosphatase-1 in Tat-activated HIV-1 transcription. *Retrovirology* 2: 47.
129. Epie, N., Ammosova, T., Sapir, T., Voloshin, Y., Lane, W.S., Turner, W., Reiner, O., and **Nekhai, S.** 2005. HIV-1 Tat Interacts with LIS1 Protein. *Retrovirology*. 2: 6.
130. Agbottah, E., de la Fuente, C., **Nekhai, S.**, Barnett, A., Gianella-Borradori, A., Pumfery, A., and Kashanchi, F. 2005. Antiviral activity of CYC202 in HIV-1 infected cells. *J. Biol. Chem.* 280, 3029-3042.
131. Ammosova, T., Jerebtsova, M., Beullens, M., Voloshin, Y., Ray, P., Kumar, A., Bollen, M., and **Nekhai, S.** 2003. Nuclear protein phosphatase-1 regulates HIV-1 transcription. *J. Biol. Chem.* **278**, 32189-32194.
132. Washington, K., Ammosova, T., Beullens, M., Jerebtsova, M., Kumar, A., Bollen, M., and **Nekhai, S.** 2002. Protein Phosphatase-1 dephosphorylates the C-terminal domain of RNA Polymerase-II. *J. Biol. Chem.* **277**, 40442-40448.
133. Deng, L., Ammosova, T., Pumfery, A., Kashanchi, F., and **Nekhai, S.** 2002. HIV-1 Tat interaction with RNA polymerase II CTD and a dynamic association with CDK2 induces CTD phosphorylation and transcription from HIV-1 promoter. *J. Biol. Chem.* **277**, 33922-33929.

134. **Nekhai, S.**, Zhou, M., Fernandez, A, Lane, W. S., Lamb, N. J. C., Brady, J. and A. Kumar HIV-1 Tat-associated CTD Kinase, CDK2, Phosphorylates CDK7 and Stimulates Tat-mediated Transcription. 2002. *Biochem. J.*, **364**, 649-657
135. Bharucha, D. C., Zhou, M., **Nekhai, S.**, Brady, J. N., Shukla, R. R., Kumar, A. Protein phosphatase from human T cells augments Tat transactivation of the immunodeficiency virus type 1 long terminal repeat. 2002. *Virology*, **296**, 6-16
136. Zhou, M., **Nekhai, S.**, Bharucha, D. C., A. Kumar, Ge, H., Price, D. H., and J. Brady. THIIH inhibits Tat-induced CDK9 phosphorylation during human immunodeficiency virus type 1 transcription. 2001. *J. Biol.Chem.* **276**, 44633-44640
137. **Nekhai, S.**, Bottaro, D., Woldehawariat, G., Spellberg, A., and R. Petryshyn. A cell-permeable peptide inhibits activation of PKR and enhances cell proliferation. 2000. *Peptides*. **21**, 1449-1456
138. **Nekhai, S.**, Shukla, R. R., Fernandez, A., Lamb, N., and A. Kumar. Cell Cycle-Dependent Stimulation of HIV-I Promoter by Tat-Associated CAK Activator. 2000, *Virology*, **266**, 246-256.
139. Sapir, T., Cahana, A., Seger, R., **Nekhai, S.**, and O. Reiner. LIS1 is a Microtubule Associated Phosphoprotein. 1999. *Eur. J. Biochem.*, **264**, 1-9.
140. Woldehawariat, G., **Nekhai S.**, and R. Petryshyn. Differential phosphorylation of PKR is associated with deregulation of eIF-2a phosphorylation and altered growth characteristics in 3T3-F442A fibroblasts. 1999. *Mol.Cell. Biochem.*, **198**, 7-17.
141. **Nekhai, S.**, Shukla, R. R. and A. Kumar. A human primary T-Lymphocyte-derived human immunodeficiency virus type 1 Tat-associated kinase phosphorylates the C-terminal domain of RNA polymerase II and induces CAK activity. 1997. *J. Virol.* **71**: 7436-7441.
142. **Nekhai, S.**, Beletzkij, V. and D. Graifer. The influence of systematic error on the shape of Scatchard plot of tRNA^{Phe} binding to eukaryotic ribosomes. 1997. *Biochem. J.*, **325**, 401-404.
143. **Nekhai, S.**, Kumar, A., Bottaro, D. and Petryshyn, R. Peptides Derived from the Interferon -Induced PKR Prevent Activation by HIV-1 TAR RNA. 1996. *Virol.* **222**, 193-200.
144. **Nekhai, S.A.**, and Saminsky, E.M. Examination of poly(U)-dependent binding of tRNA^{Phe} to ribosomal P site by nitrosoethylurea modification. 1994. *Molecul. Biol. (Moscow)* **28**, 927 - 932.
145. **Nekhai, S.A.**, Parfenov, D.V. and E. M. Saminsky. tRNA regions which contact with the ribosomal poly(U)-programmed P-site. 1994. *Biochim.Biophys..Acta*, **1218**, 481-484.
146. **Nekhai, S.A.**, and E. M. Saminsky. On the binding of isolated yeast tRNA^{Phe} anticodon arm to Escherichia coli 30S and 70S ribosomes. Guanosine-42 is important for the binding. 1994. *Biochim.Biophys..Acta*, **1218**, 21-26.
147. **Nekhai, S.A.**, and E. M. Saminsky. Binding of isolated yeast tRNA^{Phe} anticodon arm to Escherichia coli 30S and 70S ribosomes. 1994. *Molec.Biol. (Moscow)*, **28**, 658-664.
148. Graifer, D.M., **Nekhai, S.A.**, Mundus, D.A., Fedorova, O.S., and G. G. Karpova. Interaction of human and Escherichia coli tRNA^{Phe} with human 80S ribosomes in the presence of oligo- and polyuridilate templates. 1992. *Biochim.Biophys..Acta*, **1171**, 56-64.
149. **Nekhai, S.A.**, and E. M. Saminsky. Binding of yeast tRNA^{Phe} anticodon arm to Escherichia coli 30S subunits and 70S ribosomes. 1989. *Biopolym. Kletka (Kyiv)* **5**, 62-69.

Book Chapters

1. **Nekhai, S.**, and Gordeuk, V. R. 2012. Iron Metabolism in Cancer and Infection *In: Iron Physiology and Pathophysiology in Humans*, *Eds. Gregory J. Anderson and Gordon McLaren*. Humana Press. Pt.4: 477-495.
2. **Nekhai, S.**, and K.-T. Jeang. 2009. Human immunodeficiency virus type 1 Tat and Rev as potential targets for drug development. *In: Antiviral research: strategies in antiviral drug discovery*, *Ed. Robert L. LaFemina*. Page 97-112.
3. **Nekhai, S.** and Jerebtsova, M. 2007. HIV-1 associated pathology of brain and kidney. *In: Bresler memorial lectures*. *Ed. Vladislav A. Lanzov*. Petersburg Nuclear Physics Institute Press. Page 159-177.
4. **Nekhai, S.** and Ammosova, T. 2002. HIV-1 transcription activation. *In: Bresler memorial lectures*. *Ed. Vladislav A. Lanzov*. Petersburg Nuclear Physics Institute Press. Page 261-269.
5. Petryshyn, R., **Nekhai, S.**, and E. Perez-Albuerne. RNA-dependent protein kinases. 2001. *In: mRNA binding proteins*, *Ed. K. Sandberg and S. Mulrone*.