

Curriculum Vitae

Sergei Nekhai, Ph.D.

Professor (tenured), Department of Medicine
Howard University College of Medicine

Date: July 19, 2023

Contact Information

Center for Sickle Cell Disease,
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Foreign Languages: Russian native

Education

- 1986 M. Sc. in Physics and Engineering (Biophysics), Leningrad Polytechnic Institute (current name: Peter the Great St. Petersburg Polytechnic University), St. Petersburg Russia
- 1994 Ph.D. in Physics and Mathematics (Biophysics), St. Petersburg Nuclear Physics Institute, St. Petersburg, Russia

Post Graduate Education and Training

- 1994-1996 Virology, The George Washington University
- 1994-1996 Immunology, Children's National Research Center, Washington DC

Employment History

Academic Appointments

- 2014-present Vice Chair for Research, Department of Medicine, Howard University, Washington DC
- 2014-present Professor (tenured), Department of Medicine, Howard University, Washington DC
- 2014-present Adjunct Professor, Department of Microbiology, Howard University, Washington DC
- 2014-present Adjunct Professor, Department of Pharmacology, Howard University, Washington DC
- 2011-2014 Associate Professor (tenured), Department of Medicine, Howard University, Washington DC
- 2008-2014 Adjunct Associate Professor, Department of Microbiology, Howard University, Washington DC
- 2008-2011 Associate Professor (tenure-track), Department of Medicine, Howard University, Washington DC
- 2005-2008 Adjunct Assistant Professor, Department of Biochemistry and Molecular Biology, The George Washington University, Washington DC

- 2000-2009 Adjunct Assistant Professor, Department of Biochemistry and Molecular Biology, Howard University, Washington DC
- 2000-2008 Research Scientist, Center for Sickle Cell Disease, Howard University, Washington DC
- 1997–2000 Research Assistant Professor, Department of Biochemistry and Molecular Biology, the George Washington University, Washington DC
- 1994-1997 Postdoctoral Fellow, Department of Biochemistry and Molecular Biology, the George Washington University, Washington DC
- 1994-1997 Postdoctoral Fellow, Center for Cancer and Transplantation Biology, Children’s Hospital Research Institute, Washington, DC
- 1993-1994 Research Scientist, Division of Molecular and Radiation Biophysics, Petersburg Nuclear Physics Institute, St. Petersburg, Russia.
- 1986-1993 Junior Research Scientist, Division of Molecular and Radiation Biophysics, Petersburg Nuclear Physics Institute, St. Petersburg, Russia

Professional Society Memberships

- 2000-2005 Institute for Biomedical Research, the George Washington University
- 2000-2005 International Neuropeptide Society
- 2002-2012 American Society for Biochemistry and Molecular Biology
- 2003-present International BioIron Society
- 2008-present International AIDS Society
- 2010-present American Society for Hematology
- 2011-present District of Columbia Developmental Center for AIDS Research
- 2014-present American Society for Microbiology
- 2019 – present American Society for Virology

Honors and Awards

- 2021 “Glimmers of Hope” Excellence in Research in Sickle Cell Disease, Roland B. Scott Symposium
- 2020 Ebola Virus Adaptation to protein phosphatase 1 (PP1)-targeting 1E7-03 compound enhances PP1 binding to NP and reduces capsid formation. American Society for Virology (online). June 15, 2020.
- 2019 Iron metabolism in Sickle Cell Disease, invited lecture, Nemours Children’s Hospital, Wilmington, Delaware. January 29, 2019
- 2019 Urinary biomarkers of Sickle Cell anemia associated with chronic kidney disease. IV International Caparica Conference on Urine Omics and Nephrology, Lisbon, Portugal. September 1, 2019
- 2019 HIV-1 infection in Sickle Cell Disease, invited lecture, Albert Einstein University, New York, NY, February 5, 2019
- 2019 Development of antiviral small molecules against Ebola and Marburg viruses. Howard University Precision Medicine Symposium, Howard University, May 1, 2019

- 2018 Invited presentations and Session Chair, African Hematological Congress, Kintele, Brazzaville, Republic of Congo, July 12-14, 2018
- 2018 Invited presentation, Keystone Research Symposium on HIV-1 and Co-infections, Tuberculosis, April 14, 2018, Whistler, Canada
- 2018 Best Poster Award, Howard University Research Day, April 2018
- 2016 Howard University Faculty Incentive Award
- 2015 The most outstanding presentation in the area of Bio and Biomedical Sciences in the Senior Faculty category, 2015 Howard University Research Symposium
- 2014 Researcher of the Year Award, Department of Medicine, Howard University, October 17, 2014
- 2014 Outstanding Faculty Researcher Award, Howard University College of Medicine, November 5, 2014
- 2014 Best Poster Award in Clinical and Translational research, Howard University Research Day, April 2014
- 2013 Howard University Inventor Awards (Iron Chelators as HIV inhibitors and PP1 inhibitors for Ebola virus)
- 2013 Best Poster Award, 1st Howard University Research Day, April 2013
- 2013 “Scholarship and Creativity”, Howard University Faculty Senate Award, April 2013
- 2010 Best Poster Award for Senior Faculty, 1st Howard University College of Medicine Conference on Translation and Basic Research, April 28, 2010
- 2008 “Emerging Scholar”, Howard University Faculty Senate Award, April 2008
- 2007 Best Basic Research Presentation Award, 4th IAS Conference on HIV pathogenesis, Sydney Australia
- 2004 FASEB Award for the Best Poster Presentation, FASEB Protein Phosphatases Meeting, Snowmass, Colorado
- 2003 EMBO Award for Oral Presentation, Protein Phosphatases, Europhosphatase 2003, Barcelona, Spain
- 2003 Outstanding Faculty Research Award, Howard University
- 2000 FASEB Award for the Best Poster Presentation, FASEB Protein Phosphatases Meeting, Copper Mountain, CO
- 1998 Young Faculty Research Enhancement Award, the George Washington University, Washington, DC
- 1997 Research Advisory Council Award, Children’s National Medical Center, Washington, DC
- 1992 Annual Research Competition Award, St. Petersburg Nuclear Physics Institute, St. Petersburg, Russia
- 1988 Best Young Scientist Award, St. Petersburg Nuclear Physics Institute, St. Petersburg, Russia

Administrative Service

Institutional and Greater Washington DC Service

- 2022 – present Chair, College of Medicine APT committee, Howard University.
- 2023 Member, Department of OBGYN APT Committee.
- 2019-present Director, Basic Science Core, District of Columbia Center for AIDS Research (DC D-CFAR)
- 2019 – present Member, College of Medicine Committee on Committees, Howard University.
- 2017-present Deputy Director, Center for Sickle Cell Disease, Howard University
- 2011- present Chair, Radiation Safety Committee
- 2010- present Member, Department of Medicine APT Committee.
- 2009- present Director, Howard University RCMi Proteomics Core Facility
- 2009- present Co-Director and Technical Supervisor, CLIA Certified Clinical Laboratory at Center for Sickle Cell Disease for analysis of hemoglobin using HPLC (free sickle cell trait service for community)
- 2022-presnet Data Science Biology-Medicine Cluster hiring Committee member
- 2022-present Data Science Pharmacy-Medicine Cluster hiring Committee member
- 2020 – 2022 Member, College of Medicine APT committee, Howard University.
- 2016-2020 Program Director, Center for Hemoglobin Research in Minorities (CHaRM)
- 2019-2020 Member, Department of Medicine Chair Search committee, Howard University College of Medicine.
- 2018-2019 Acting Director, Basic Science Core, District of Columbia Center for AIDS Research (DC D-CFAR)
- 2013-2019 Sabbatical Leave Review Committee, Howard University College of Medicine
- 2013-2018 Co-Director, District of Columbia Center for AIDS Research (DC D-CFAR)
- 2012-2018 Committee on Research, Howard University College of Medicine
- 2012-2018 Executive Committee, Howard University College of Medicine
- 2011-2017 Acting Co-Director, Center for Sickle Cell Disease, Howard University
- 2008-2011 Director for Basic Research, Center for Sickle Cell Disease, Howard University

Local and National Service

- 2003-curent **Manuscript Reviewer for:** American Journal of Tropical Medicine and Hygiene (*AJTMH*), Biology (MDPI), Biotechnology and Applied Biochemistry, BMC Hematology, Blood, Blood Advances, Cancer Research, Chemical Reviews, Current HIV-1

Research, European Journal of Pharmaceutical Sciences, FASEB Journal, Future Medicine, Future Virology, Gene Therapy, Journal of Molecular Medicine Journal of Biological Chemistry, Journal of Cellular Biology, Journal of Cellular Physiology, Letters in drug design and discovery, Medical Microbiology and Immunology, Mediterranean Journal of Hematology and Infectious Diseases, Molecular and Cellular Biochemistry, Nature Communications, Oncotarget, Nature Microbiology Review, PLoS One, PloS Pathogens, Virology, Blood Advances, Virology, Retrovirology, Stem Cells, Stem Cells and Development, Viruses (MDPI), Virus research

- 2023 **DC CFAR Grant reviewer**, *HIV-1/AIDS applications*. May 8, 2023
- 2023 **Final PhD Defense Committee member**, Madison Moore, July 18, 2023, Department of Biology, College of Arts and Science, Howard University
- 2023 **PhD Defense Committee member**, Collis Brown, May 24, 2023, Department of Pharmacology, College of Medicine, Howard University
- 2023 **PhD Defense Committee member**, Benedict Quagraine, May 23, 2023, Department of Biology, College of Arts and Science, Howard University
- 2023 **PhD Defense Committee member for final defense**, Fatemah Alhakami, April 24, 2023, Department of Human Genetics, College of Medicine, Howard University
- 2023 **PhD Defense Committee member**, Bharathi Mandala, March 15, 2023, College of Pharmacy, Howard University
- 2022 **NIH Grant Reviewer**, *DP2, New Innovator Award Program*, December 9, 2022
- 2022 **NIH Grant Reviewer**, *ZRG1 MBBC-s(30), High instrumentation grants*, October 24-24, 2022
- 2022 **Faculty evaluator**, University of Botswana, *October 3, 2022*.
- 2022 **NIH Grant Reviewer**, *ZRG F07C, Fellowships: Infectious Diseases and Immunology*, July 13-14, 2022
- 2022 **PhD Defense Committee member**, Gift Mensah, July 28, George Mason University
- 2022 **PhD Defense Committee member**, Collis Brown, January 24, 2022, Department of Pharmacology, Howard University
- 2022 **PhD Defense Committee member**, Nowah Afangbedji, Department of Physiology, Howard University
- 2021 **NIH Grant Reviewer**, *ZRG1 F07C – K, Fellowships: Infectious Diseases and Immunology*, December 1 -2, 2021
- 2021 **Faculty evaluator**, King Saud University, Saudi Arabia, *November 20, 2021*.

- 2021 **PhD Defense Committee member**, Benedict Quagraine, Department of Biology, Howard University
- 2021 **NIH Grant Reviewer**, *ZRG1 F17A – C, AIDS and AIDS-related applications, April 2, 2021.*
- 2021 **NIH Grant Reviewer**, *PHS-2021-1: NIH/NIAID 088: Therapeutic Targeting of Intracellular HIV-1 Proteins or Nucleic Acids. January 21, 2021.*
- 2020 **Russian Science Foundation Grants Reviewer**, *June 19, 2020.*
- 2020 **NIH Grant Reviewer**, *ZRG1 F17 – P(A), AIDS and AIDS-related applications, March 17, 2020.*
- 2020 **MS Defense Committee member**, Elbethel Damtae, April 30, School of Engineering, Howard University
- 2020 **Howard University Just Julian Grant reviewer**, *March 11, 2020*
- 2020 **Georgetown University - Howard University Clinical and Translational Science Program (GHUCCTS) Grants Reviewer**, *June 10, 2020.*
- 2020 **DC CFAR Grant reviewer**, *HIV-1/AIDS applications. May 20, 2020*
- 2020 **DC CFAR Grant reviewer**, *HIV-1/AIDS applications. January 21, 2020*
- 2020 **DC CFAR Grant reviewer**, *HIV-1/AIDS applications. February 12, 2020*
- 2020 **Chair of PhD Defense Committee**, Olusayo Louise-Oluwasan, July 31, 2020. Department of Human Genetics, Howard University
- 2020 **Candidate Advisor and PhD Defense Committee member**, Awadh Alanazi, April 22, 2020. Department of Microbiology, Howard University
- 2019 **Russian Science Foundation Grants Reviewer**, *June 15, 2019.*
- 2019 **RCMI 2019 National Conference “Collaborative solutions to improve Minority Health”**, abstracts evaluator, *October 18, 2019*
- 2019 **PhD Defense Committee member**, Yvonne Abbey, April 15, College of Pharmacy, Howard University
- 2019 **PhD Defense Committee member**, Michelle L. Pleet, April 12, George Mason University
- 2019 **NIH Grant Reviewer**, *ZRG1 F17 – P(A), AIDS and AIDS-related applications, July 2, 2019.*
- 2019 **NIH Grant Reviewer**, *ZRG1 AARR-M, AIDS and AIDS-related applications, April 1, 2019.*
- 2019 **NIH Grant Reviewer**, *ZRG1 AARR-M (02), AIDS and AIDS-related research, December 05-06, 2019*
- 2019 **NIH Grant Reviewer**, *ZRG1 AARR-M (02),*
- 2019 **MS Defense Committee member**, Eric Ogharandukun, April 30, School of Engineering, Howard University

- 2019 **King Abdullah Medical Research Center Grant Reviewer**, April 3, 2019.
- 2019 **Howard University College of Medicine Residents Program**, evaluator of candidates, *November 11 – 17, 2019*
- 2019 **Howard University College of Medicine Residents Program**, evaluator of candidates, *November 11 – 17, 2019*
- 2019 **Department of Medicine Tenure-track Faculty Search Committee member**, *Howard University*
- 2019 **Department of Medicine Chair Search Committee member**, *Howard University*
- 2019 **Department of Anesthesiology APT Committee**, guest Professor application evaluator, *October 09, 2019*.
- 2019 **DC CFAR Grant reviewer**, *HIV-1/AIDS applications. April 24, 2019*
- 2019 **Conference Organizer and Chair**, 5th Annual DC CFAR Basic Science Research Conference, Howard University, Washington DC, May 31, 2019
- 2018 **Russian Science Foundation Grant reviewer**, March 14, 2018
- 2018 **PhD Defense Committee member**, Brian Carey, November 25, George Mason University
- 2018 **NIH Grant Reviewer**, *ZRG1 F17-M(20) AIDS and AIDS-related applications. March 1, 2018.*
- 2018 **NIH Grant Reviewer**, *ZRG1 F17-M(20) AIDS and AIDS-related applications. July 6, 2018.*
- 2018 **NIH Grant Reviewer**, *ZRG1 F17, AIDS and AIDS-related applications. November 1, 2018.*
- 2018 **NIH Grant Reviewer**, *AARR M91, Neuro AIDS applications. November 1, 2018.*
- 2018 **MS Defense Committee member**, Fatemah Alhakami, Department of Biology, Howard University, December 4, 2018
- 2018 **Grant review for National Science Centre in Poland**, *HIV-1/AIDS application. December 29, 2018*
- 2018 **Faculty recruitment evaluation** of Dr. Mudit Tyagi, April 2, 2018
- 2018 **External Reviewer** for Dr. Saraf Santosh's promotion to the rank of Associate Professor, Department of Medicine, University of Illinois at Chicago School of Medicine, May 23, 2018
- 2018 **External Reviewer** for Dr. Andy Qigui Yu's promotion to the rank of full professor, Department of Microbiology and Immunology, Indiana University School of Medicine, May 5, 2018
- 2018 **Co-Organizer of CFAR Workshop**, Next-Generation Sequencing Lab Open Lab, George Washington University, 02/05/2018

- 2018 **Conference Co-Organizer**, 5th Annual World Sickle Cell Awareness Day Research Symposium, Howard University, June 19, 2018 (half-day conference)
- 2018 **Conference Co-Organizer and Chair**, 3d Annual CFAR Basic Science Research Day, George Washington University, June 6, 2018
- 2018 **CFAR Microgrant reviewer**, June 5, 2018
- 2018 **CFAR Microgrant reviewer**, January 24, 2018
- 2017 **Russian Science Foundation Grant reviewer**, June 25, 2017
- 2017 **NIH Grant Reviewer**, *ZRG1 F17-M, AIDS and AIDS related applications, March 16, 2017*
- 2017 **NIH Grant Reviewer**, *ZRG1 F17-M, AIDS and AIDS related applications, July 14, 2017*
- 2017 **NIH Grant Reviewer**, *ZRG1 AARR-Q(51) Role of myeloid cells on persistence and eradication of HIV-1 reservoirs from the brain. November 29, 2017.*
- 2017 **Co-Organizer of CFAR Workshop**, Proteomics Core open Lab, Howard University, 04/20/2017
- 2017 **Conference organizing committee co-chair and session chair**, Physiological and pathophysiological consequence of Sickle Cell Disease, American Society for Physiology Satellite Symposium, Washington DC, November 6-8, 2017
- 2017 **Conference Co-Organizer and Conference Chair**, 4th Annual World Sickle Cell Awareness Day Research Symposium, Howard University, June 16, 2017 (half-day conference)
- 2017 **CFAR pilot project grant reviewer**, June 19, 2018
- 2017 **CFAR Microgrant reviewer**, October 11, 2017
- 2017 **Co-Organizer of CFAR Workshop**. Multiparametric Flow Cytometry Open Lab, George Washington University, 09/26/2017
- 2016 **NIH Grant Reviewer**, *ZRG1 F17-M, AIDS and AIDS related applications, July 5, 2016*
- 2016 **NIH Grant Reviewer**, *ZRG1 F17-M, AIDS and AIDS related applications, November 17, 2016*
- 2016 Howard University Research Day poster judge
- 2016 **Grant Reviewer**, *Russian Federal Science Foundation, Russian Federation*
- 2016 **Grant Reviewer**, *CHARM pilot projects applications*
- 2016 **Conference Co-Organizer**, First Annual DC CFAR Research Symposium, Washington DC, January 27, 2017
- 2016 **Conference Co-Organizer and Conference Chair**, 2nd CFAR Basic Research Conference, Washington DC, May 15, 2016
- 2015 **NIH Grant Reviewer**, *National Research Service Awards fellowship program, July 29-30, 2015*

- 2015 Howard University Research Day poster judge
- 2015 **Grant Reviewer**, *Russian Federal Science Foundation, Russian Federation*
- 2015 **Grant Reviewer**, *Georgetown-Howard University Center for Clinical and Translational Science (GHUCCTS)*
- 2015 **Conference co-organizer**: OMICS Retrovirology and Novel Drugs, June 08-09, 2015, Chicago, IL
- 2015 **Conference Co-Organizer and Session Chair**, 1st CFAR Basic Research Conference, Washington DC, May 15, 2015
- 2014 **NIH Grant Reviewer**, *Special Emphasis panel “NIAID Investigator Initiated Program Project Application (PO1)”, July 1, 2014*
- 2014 **NIH Grant Reviewer**, *NIH Special Emphasis panel ZRG1 AARR-K (51): R21/R33 Phased Innovation Awards in response to the program announcement: Targeting Persistent HIV Reservoirs, June 26-27, 2014*
- 2014 **NIH Grant Reviewer**, *NIGMS Peer Review of Support of Competitive Research (SCORE) Grant Applications (ZGM1 TWD-6 (SC)), November 6-7, 2014*
- 2014 **Grant Reviewer**, *Russian Megagrants program, Russian Federation*
- 2014 **External PhD examiner** for Toon Verheyen thesis “Genome-wide promoter binding profiling of Protein phosphatase 1 and its major nuclear targeting subunits”, Catholic University of Leuven, September 2014
- 2013-14 **Grant reviewer**, *RTRN pilot grants*
- 2013 **Grant Reviewer**, *Russian Mega grants program, Russian Federation*
- 2012-2014 **Grant Reviewer**, *Israeli National Science Foundation*
- 2012 **Ph.D. Thesis committee member**: *proposal defense for Steven Santos, The George Washington University*
- 2012 **Grant Reviewer**, *American Institute for Biological Science, US Army Medical Research and Materiel Command*
- 2012 **Abstracts Reviewer**, *XX International AIDS Conference*
- 2011-2014 **Grant Reviewer**, *GHUCCTS*
- 2011-2014 **Grant Reviewer**, *DC D-CFAR*
- 2011 **External Faculty Evaluator**, *University of California at San Diego*
- 2011 **Abstracts Reviewer**, *XIX International AIDS Conference*
- 2011 **Grant Reviewer**, *NIAID, NIH special review study section, Martin Delaney Collaboratory: Towards an HIV-1 Cure*
- 2010 **Ph.D. Defense Committee member**, *Nicole McNeil April 08, Howard University Graduate School*

- 2010 **Grant Reviewer**, *Jones Hopkins – Howard University grant proposals*
- 2010 **Grant Reviewer**, *Inova/George Mason University proposal*
- 2010 **Abstracts Reviewer**, *XVIII International AIDS Conference*
- 2010 **Session Chair**, 12th RCMI International Symposium on health disparities. Nashville, TN.
- 2009 **Abstracts Reviewer**, *XVII International AIDS Conference*
- 2008 **Session Chair**, 1st Mid-Atlantic HIV-1/AIDS conferences, The George Washington University
- 2008 **Reviewer**, *XVI International AIDS Conference*
- 2008 **External reviewer for the promotion to the rank of Associate Professor of Medicine**, Southwestern Medical Center at Dallas, Dallas, Texas
- 2008 **Reviewer**, *XVI International AIDS Conference*
- 2007-2013 **Reviewer**, *American Society for Cancer Research*
- 2007 **External reviewer for the promotion to the rank of Associate Professor of Medicine**, *Research Scholar Track, Brown University School of Medicine*
- 2006 **Grant Reviewer**, *AIDS Fonds (Netherlands)*
- 2006 **External Examiner**, *Ph.D. Thesis defense for Kylene Kehne November 30, 2005, The George Washington University*
- 2005-2012 **Ph.D. committee member for the following students:** *Kareem Washington, Nicolas Epie, Sharroya Charles, Altreisha Foster, Zufan Debebe, Denitra Breuer and Kahli Smith*
- 2005 **External Examiner**, *Ph.D. Thesis defense for Cynthia De La Fuente 11/30/2005, The George Washington University*
- 2003-2013 **Grant Reviewer**, *Howard University General Clinical Research Center*

Teaching/Training Service

PhD trainees

- 2022 – present Papa Hoyek, Department of Microbiology, Howard University College of Medicine
- 2021-present Ghadeer Abdullah, Department of Biology, Howard University College of Arts and Science
- 2021-2023 Fatemah Alhakami, Department of Human Genetics, Howard University College of Medicine
- 2018-2022 Victoria Brooks, Department of Microbiology, Howard University College of Medicine
- 2017-2023 Nowah Afangbedji, Department of Physiology and Biophysics, Howard University College of Medicine

- 2018-2020 Awadh Alanazi, Department of Microbiology, Howard University College of Medicine
- 2018 Mitsu Shah, Department of Pharmacology, Howard University College of Medicine
- 2016-2017 Israa A Malli, Department of Microbiology, Howard University College of Medicine
- 2015-2016 Moris Fluitt, Department of Human Genetics, Howard University College of Medicine
- 2015 Ruth Hunegnaw, PhD student from Dr. Burkinsky's lab (The George Washington University)
- 2015 Ekaterina Gaidar, MD, Graduate student at Pediatrics Academy, St. Petersburg, Russia
- 2014 – 2019 Hatajai Lassiter, Department of Microbiology, Howard University College of Medicine
- 2012-2014 Kahli Smith, Department of Pharmacology, Howard University College of Medicine
- 2011-2016 Elena Adjei, Department of Human Genetics, Howard University College of Medicine,
- 2009 – 2012 Denitra Breuer, Department of Microbiology, Howard University College of Medicine
- 2005 – 2011 Zufan Debebe, Department of Pharmaceutical Sciences, Howard University
- 2006 – 2009 Altreisha Foster, Department of Microbiology, Howard University College of Medicine
- 2004 – 2009 Sharroya Charles, Department of Human Genetics, Howard University College of Medicine
- 2001- 2006 Nicolas Epie, Department of Microbiology, Howard University College of Medicine,
- 2002 – 2003 Angela Jackson, Department of Biochemistry and Molecular Biology, Howard University
- 2005 Marcus Hodges, Department of Biology, Howard University
- 2000 – 2005 Kareem Washington, Department of Human Genetics, Howard University College of Medicine

Medical Students

- 2022 Eric Hercules
- 2022 Jamon Thomas
- 2022 Ixavion Write
- 2020 Emmanuel Taye, 4th year medical student
- 2018 (summer) Nathan Smith, 2nd year medical student

2018 (summer) Emmanuel Taye, 2nd year medical student (ASH minority scholar)
 2017 (summer) Simran Soni, 2nd year medical student
 2017 (summer) Naveen Ghuman, 2nd year medical student
 2017 Natalie Liu, 2nd year medical student
 2016 (summer) Gillian Lee, 2nd year medical student
 2009 (summer) Keon Combi, 2nd year medical student
 2007(summer) Abisola Ayomiposi Ayodeji, second year MD student (ASH
 summer trainee)

Undergraduate students

2022 – Alejandro Alexander
 2018-2019 Zhanna Ernest
 2017-2018 Keona Wynne
 2015-2018 Nowah Afangbedji
 2015 Hasti Olume (trained to use Proteome Discoverer)
 2015 Guilherme Ventura Martins, BS (visiting student from Brazil)
 2014 Yasmeen Byrnes (summer student)
 2007 Dillon Robinson, B.S.
 2007-10 Jamie Rotimi, B.S.
 2006-2007 Robert Williams, B.S.
 2000 Tunesia Adams

High School Students

2008 Maryland Okoro, Kara Jones, Chioma Njoku
 2009 Jerod Hairston
 2010 Mary Amaechi, Onyinyechi Ogbumbadiucha
 2011 Malik Saxon
 2012 Maria Ovado, Swati Srivastava, Michelle Molina, Apoorva Thumma,
 Akaash Shukla
 2013 Raju Arabandi
 2014 Adrienne Adams
 2017 Kameron N Medine
 2017 Oluwadara Sontan

Postdoctoral Fellows

2022 – 2023 Clemilson Berto, PhD
 2022 – presenta Jyothirmai Simhadri, PhD
 2015-present Asrar Ahmad, PhD
 2010 – present Andrey Ivanov, M.D. Ph.D.
 2010- 2022 Namita Kumari, Ph.D.
 2014-2019 Xionghao Lin, Ph.D.
 2015 – 2017 Guelaguetza Vazquez-Meves, Ph.D.
 2015-2016 Christian Parry, Ph.D.
 2010 – 2011 Yuri Oboukhov, Ph.D.
 2007-2010 Min Xu, M.D.
 2008-2009 Alexander Kotelkin, Ph.D.

2004 – 2007 Xiaomei Niu, M.D
 2005-2007 Amanuel Edossa, Ph.D.
 2001-2005 Tatyana Ammosova, Ph.D.

Faculty

2001 Beverly Smith-Franklin, Ph.D., Assistant Professor, Catholic University
 2002 Paul Kple-Faget, MD, Visiting Fulbright Scholar, University of Benin.
 2004-2005 Josef Kurantsin-Mills, Ph.D.
 2010-present Tatyana Ammosova, Assistant Research Professor, Department of Medicine.
 2010-2013 Yuri Obukhov, Research Scientist, Center for Sickle Cell Disease, K-25 grant recipient
 2011 Kevin Sterling, MD. DC D-CFAR grant recipient
 2012 John Aneke M.D. ASH Scholar, Nnamdi Azikiwe University, Anambra State, Nigeria.
 2019- present Namita Kumari, Assistant Research Professor, Department of Medicine.
 2010-present Xionghao Lin, Assistant Research Professor, School of Dentistry.
 2013-2016 Simon Adesina, Assistant Professor, Department of Pharmacological Science, College of Pharmacy
 2017-2019 Christian Parry, Assistant Professor, Department of Microbiology.
 2018-2019 Ian Toma, Assistant research Professor, The George Washington University

Lectures

2022 Virology Course for Graduate Students at Department of Microbiology (Virus Structure (2 hrs), Viral Pathogenesis (2 hrs), HIV-1 replication (4 hrs), Chronic HIV-1 infection (2 hrs); Diagnostic of viral diseases (2 hrs), COVID-19 (2 hrs), Ebola and Marburg viral infections (2 hrs), total 16 hrs)

2020 Virology Course for Graduate Students (Virus Structure (2 hrs), Viral Pathogenesis (2 hrs), HIV-1 replication (4 hrs), Chronic HIV-1 infection (2 hrs); Diagnostic of viral diseases (2 hrs), COVID-19 (2 hrs), Ebola and Marburg viral infections (2 hrs)), Department of Microbiology (total 16 hrs)

2018 Virology Course for Graduate Students (viral structure part I and part II, viral pathogenesis, viral detection, HIV-1 life cycle and HIV-1 pathogenesis) for graduate students, Department of Microbiology (12 hrs)

2017 Virology Course for Graduate Students (viral structure part I and part II, viral pathogenesis, viral detection, HIV-1 life cycle and HIV-1 pathogenesis) for graduate students, Department of Microbiology (12 hrs)

2016 Viruses as Drug Targets, introductory lecture for Pharmacology students (2 hrs)

2016 Virology Course for Graduate Students (viral structure part I and part II, viral pathogenesis, viral detection, HIV-1 life cycle and HIV-1 pathogenesis) for graduate students, Department of Microbiology (12 hrs)

- 2015 Viruses as Drug Targets, introductory lecture for Pharmacology students (2 hrs)
- 2015 Virus Structure and Virus-Host interactions lectures for Medical Students (4 hrs)
- 2014 Human genetics Course for Graduate Students (blood borne diseases and sickle cell disease; hemochromatosis and polycythemia (4 hrs/year)
- 2013-2015 Virology Course for Graduate Students (viral structure part I and part II, transformation and oncogenesis, viral immunology and pathogenesis, HIV-1, HIV-1 pathogenesis, practical course) for graduate students, Department of Microbiology (18 hrs/year)
- 2009-2012 Virology Course for Graduate Students (viral structure part I and part II, viral immunology and pathogenesis) for graduate students, Department of Microbiology, Howard University (8 hrs/year)
- 2008-present Viral Diagnostics in Microbiology for Nursing Students Department of Microbiology, Howard University (3 hrs/year)
- 2004-2005 Protein Translation, protein stability, BMSC 211, the George Washington University (4 hrs/year)
- 2001 - present Research seminars at Center for Sickle Cell Disease (1 hr/week, ~ 30 hrs/year)
- 2000-2010 Annual lecture for MD and graduate students at General Clinical Research Center (GCRC), Howard University (2 hrs/year)
- 1999 Biochemical Techniques, Introductory course for graduate students, Biochemistry 223, George Washington University (12 hrs/year)

Other Service

- 2022 Community member volunteer at Francis C Hammond Middle School, Alexandria, VA for “Wilderness Kids Alexandria” rock climbing event in Carderock, MD (October 16, 2022)
- 2022 Sickle Cell Walk event, Howard University (September 19, 2022)
- 2022 Open climbing day, Potomac Appalachian Trail Club Mountaineering Section (PATC-MS) (August 18, 2022)
- 2019 Volunteer for World Cup Cross Country Skiing Final Championships, Quebec City, Canada
- 2016 Volunteer for XXIII Summer Olympic Games in Brazil
- 2015 Volunteer for XVI World Police and Fire Fames, Fairfax, VA
- 2013 Trained as a volunteer for XXII Winter Olympic Games in Sochi, Russia 2007-2013 Volunteer, Science Olympiad (Invitational, Virginia State and National Tournaments)
- 2009-2013 Volunteer, blood drawing for sickle cell testing during community health fairs
- 2009-2012 Summer training of high school students

Grant Support

ACTIVE

Title: Sickle cell disease and sickle cell trait protection against HIV-1 infection in Africans and African Americans

Major Goals: to define molecular mechanism of HIV-1 restriction in Sickle Cell Disease

Status of Support: Active

Project Number: 1 R01 HL 125005 - 09

Name of PD/PI: Nekhai, S.

Source of Support: NHLBI

Primary Place of Performance: Howard University, Washington DC

Project/Proposal Start and End Date: (MM/YYYY) (if available): 05/2014-02/2025

Total Award Amount (including Indirect Costs): \$2,029,527

Person Months (Calendar/Academic/Summer) per budget period.

Year (YYYY)	Person Months (##.##)
1. 2020	2.4 calendar
2. 2021	2.4 calendar
3. 2022	2.4 calendar
4. 2023	2.4 calendar
5. 2024	2.4 calendar

Title: Howard University Research Center for Minority Health and Health Disparities

Major Goals: to enhance Howard's capacity for basic biomedical and clinical approaches to health disparities research.

Project Number: 5 U54 MD 007597 - 33

Name of PD/PI: Southerland, W. M.

Source of Support: NIMHD

Primary Place of Performance: Howard University, Washington DC

Project/Proposal Start and End Date: (MM/YYYY) (if available): 09/1997-01/2024

Total Award Amount (including Indirect Costs): \$16,918,485

Person Months (Calendar/Academic/Summer) per budget period.

Year (YYYY)	Person Months (##.##)
1. 2019	2.4 calendar
2. 2020	2.4 calendar
3. 2021	2.4 calendar
4. 2022	2.4 calendar

Year (YYYY)	Person Months (##.##)
5. 2023	2.4 calendar

Title: District of Columbia Center for AIDS Research (DC CFAR)

Major Goals: To expand our multi-institutional effort to support research that contributes to ending the HIV epidemic in Washington, DC and beyond in partnership with government and community.

Project Number: P30AI117970

Name of PD/PI: Greenberg, Alan E.

Source of Support: NIH

Primary Place of Performance: Howard University, Washington DC

Project/Proposal Start and End Date: (MM/YYYY) (if available): 06/2020 – 05/2025

Total Award Amount (including Indirect Costs): \$83,493

Person Months (Calendar/Academic/Summer) per budget period.

Year (YYYY)	Person Months (##.##)
1. 2020	0.60 calendar
2. 2021	0.60 calendar
3. 2022	0.60 calendar
4. 2023	0.60 calendar
5. 2024	0.60 calendar

Title: Excellence in Research:
Biophysical mechanism by which
mannose and N glycans modifies
and protects biological surfaces

Major Goals: to investigate molecular mechanisms of cell surface glycans in binding and interacting with viruses including HIV-1.

Project Number: NSF 2000175

Name of PD/PI: Chandran, P. and Nekhai, S.

Source of Support: NSF

Primary Place of Performance: Howard University, Washington DC

Project/Proposal Start and End Date: (MM/YYYY) (if available): 7/2020-6/2023

Total Award Amount (including Indirect Costs): \$328,308

Person Months (Calendar/Academic/Summer) per budget period.

Year (YYYY)	Person Months (##.##)
1. 2020	2.4 calendar
2. 2021	2.4 calendar
3. 2022	2.4 calendar

Year (YYYY)	Person Months (##.##)

Title: Targeting Lymph Node and Spleen HIV Reservoirs for HIV Cure

Major Goals: to develop biodegradable polymeric nanoparticles for targeted delivery of antiretroviral drugs and latency reversing agents to the spleen.

Project Number: U54 MD007597- 34

Name of PD/PI: Akala, E and Nekhai, S.

Source of Support: NIMHD and NIAID

Primary Place of Performance: Howard University, Washington DC

Project/Proposal Start and End Date: (MM/YYYY) (if available): 02/2022-01/2024

Total Award Amount (including Indirect Costs): \$772,500

Person Months (Calendar/Academic/Summer) per budget period.

Year (YYYY)	Person Months (##.##)
1. 2022	1.0 calendar
2. 2023	1.0 calendar
3. 2024	1.0 calendar

COMPLETED GRANTS

1UM1AI26617, Martin Delaney (Nixon)

07/01/16 – 06/30/22

NIH/NIAID

\$339,750

BELIEVE: Bench to bed Enhanced lymphocyte infusions to engineer viral eradication.

Role: Proteomics services provider

S10OD028681-01 (Nekhai) NIH Acquisition of Orbitrap mass spectrometer The goal of this high-end instrumentation grant is to upgrade the existing mass spectrometer at Howard University RCMC Proteomics Core facility for a top-of-the-line Orbitrap Exploris 480 instrument. Role: PI	09/10/20-09/09/2021 \$869,135
1P50HL118006-01 (Nekhai) NIH/NHLBI Center for Hemoglobin Research in Minorities (CHaRM). Role: PI	8/15/2013-12/01/2020 \$7, 011,011
3R01HL125005-01(PI Nekhai) NHLBI, NIH Inhibition of HIV-1 in Sickle Cell Disease The major goal of this project is to provide support for minority Ph.D. students. The scientific goal is to analyze the role of p21 in the inhibition of HIV-1 reverse transcription in sickle cell disease. Role: Advisor for Hatajai Lassiter, PhD student.	05/01/2015 – 07/31/19 \$225,382
3R01HL125005-01(PI Nekhai) NHLBI, NIH Inhibition of HIV-1 in Sickle Cell Disease The major goal of this project is to provide support for a minority junior faculty (Dr. Christian Parry). The scientific goal is to analyze the role of oxidative stress in sickle cell disease. Role: mentor of Junior Faculty	12/15/2016 – 07/31/2019 \$225,382
CFAR Pilot project (PI:Thoma) NIH/NIAID The effect of maternal HIV infection on baseline immune landscape of neonates as a predictor of their immune responses to early vaccinations.” The goal of this pilot grant is to access the effect of immunization on HIV-1 immune response Role: Mentor of Dr. Ian Thoma	01/01/2017-10/01/2018 \$50,000
ASH Summer Minority Scholarship ASH Foundation Role: mentor for summer minority medical student, Emmanuel Taye.	05/01/2018-08/01/2018 \$5,000
5 U19 AI109664-03 (Basler; Nekhai – co-PI for HU) NIH/NIAID Centers of Excellence for Translational Research HU Direct Costs: \$1,250,000 Therapeutics targeting filoviral interferon-antagonist and replication functions	03/01/14-02/28/19 \$16,263,701 (HU Costs: \$1,885,000)
2 R01 AI043894-11A1 (Kashanchi) NIH/NIAID “Development of HIV-1 transcription inhibitors” Role: Co-Investigator	07/01/11 - 8/31/15 \$ 1,480,000
GW Project No.:31440-16-CCLS90469F (Akala)	09/01/11 - 6/31/15

NIH/NIAID	\$ 581,948
“Nanoparticles mediated delivery of anti-HIV-1 drugs to Peyers patches”.	
Supplement for DC-D-CFAR grant 5P30A1087714-02	
Role: Co-Investigator	
KL2 (Adesina)	10/01/13-09/30/16
Development of a Novel Nanoparticle System for the Delivery of siRNA and Drugs for HIV Therapy	
Role: Mentor of KO2 applicant and provide support for the anti-HIV-1 effect of nanoparticles.	
UL1TR000101 (GHUCCTS-PCSP) (Nekhai)	11/15/14-06/31/15
Georgetown-Howard University Center	\$14,807
for Clinical and Translational Science	
“Neutral Loss Scanning and Multiple Reaction Monitoring to Detect Small Molecule Metabolites“	
Role: PI	
US-Russia Collaborative HIV/AIDS Research (MPI: Nekhai, Petukhov)	
	7/01/2012 – 05/31/2015
Supplement to 5P30AI087712-02 (DC D-CFAR) NIH/NIAID	\$150,000 (USA); \$66,000 (Russia)
Targeting Protein Phosphatase 1 for activation of latent HIV-1	
The goal of this DC D-CFAR supplement is to analyze PP1-targeted small molecule inhibitors as activators of latent HIV-1 provirus	
Role: PI for USA part	
5P30AI087714-04 (PI: Greenberg)	06/01/10 – 05/31/15
NIH	\$451,558
The District of Columbia Developmental Center for AIDS Research (DC D-CFAR)	
To advance HIV/AIDS research, promote the development of junior and minority investigators, and increase HIV/AIDS collaboration in Washington DC.	
Role: Co-Director, Basic Science Core	
Alzheimer's Drug Discovery Foundation (Xiang.S. Wang)	06/01/13-05/31/14
Highly Selective HDAC2 Inhibitors to Treat Alzheimer's Disease	\$110,000
Role: Co-Investigator	
8G12MD007597 RCMi Program (Southerland)	07/01/2009-06/30/2014
NIH/NIMHHD	\$9,440,200
	(Proteomics component)
The goal of this program is to establish new research facilities and promote science at Minority Institutions.	
Role: Director of Proteomics Core Facility	
UL1TR000101 (GHUCCTS-PCSP) (MPI-Nekhai, Uren)	11/01/12-10/31/14
Georgetown-Howard University Center	\$45,000
for Clinical and Translational Science	
Pilot and Collaborative Studies Program	
“Small molecule inhibitors of HIV-1 and Ebola viruses “	
Role: PI	

1P30HL107253-01 (Taylor) NIH/NHLBI "NHLBI Research Center at Howard University" The major goal of this research program is to develop a new research program at Howard University related to iron metabolism; sickle cell disease; role of hypoxia and iron in HIV-1 and regulation of IL-10 transcription by protein phosphatase-1. Role: Co-Investigator	07/01/11 - 4/30/14 \$ 414,000
1SC1GM082325-01 (Nekhai) SCORE NIH/NIGMS Regulation of HIV-1 transcription by CDK2 The goal of this research program is to establish the role of CDK2 in the regulation of HIV-1 transcription Role: PI	04/01/2008 – 03/31/2014 \$1,036,000
5UH1 HL03679-04 (Nekhai, Gordeuk) NIH/NHLBI "HBCU Research Scientist Program, Howard University" The major goal of this research program is to develop a new research program at Howard University related to iron metabolism; sickle cell disease; role of hypoxia and iron in HIV-1 and regulation of IL-10 transcription by protein phosphatase-1. Role: Co-Investigator and PI for the last year	9/30/05 - 08/31/12 \$ 1,742,971
1K25GM097501 - 01A1 (Obukhov) NIH/NIAID K25 Mentored Award Mentored Quantitative Research Development Award "HIV-1 Proteomics" Role: Mentor of Ph.D. Physicist	05/01/12 - 4/30/13 \$240,000
1F31AI091551-01A1 (Breuer) NIH/NIAID F31 Individual Predoctoral Kirschstein-NRSA fellowship "CDK9 phosphorylation by CDK2 in HIV-1 replication" Role: Sponsor of Ph.D. candidate	09/01/11 - 04/30/12 \$ 180,000
DC-D-CFAR Pilot Projects (Iordansky) DC-D-CFAR Host cofactors of HIV-1 replication in dividing and non-dividing cells The goal of this pilot project is to investigate HIV-1 integrase complex using proteomics approach Role: Co-Inverstigator	02/01/2011-01/31/2012 \$6,000
DC-D-CFAR Pilot Projects (Zeichner) DC-D-CFAR "Proteomics characterization of Kaposi's sarcoma-associated herpesvirus (KSHV) virions made in two different replication pathways." The goal of this pilot project is to investigate HHV-8 capsid proteins using proteomics approach Role: Co-Inverstigator	03/01/2011-2/28/2012 \$3,000
ARRA RTRN Small pilot grant (Maldonado) NCRR	09/01/2010-09/01/2012 \$6,000

HTS for discovery of novel anti-trypanosomal agents
The goal of this ARRA grant is to develop small molecule inhibitors of Trypanosoma
Cruzi.
Role: Co-Investigator

ARRA Supplement for 1SC1GM081192-01 (Nekhai) 09/28/2009 –09/27/2011
NIH/NIGMS \$107,393
“Development OF Cdk2 Knock-down induced pluripotent stem cells (iPSC) for the
Inhibition of HIV-1 “. The goal of this ARRA supplement is to initiate studies with iPSC
Role: PI

ARRA Supplement for 1SC1GM081192-01 (Nekhai) 09/10/2009 –09/09/2011
NIH/NIGMS Instrumentation supplement \$98,000
The goal of this ARRA supplement is to acquire a fluorescent microscope, real-time PCR
machine and FACS station.
Role: PI

5F31HL090025-03 (Debebe) 3/01/08 - 2/28/11
NIH/NHLBI \$ 180,000
F31 Individual Predoctoral Kirschstein-NRSA fellowship
“Inhibition of HIV-1 transcription by iron chelators”
Role: Sponsor of Ph.D. candidate

02.740.11.5032 (Nekhai) 08/01/09 – 08/01/10
Russian Federation (Rosnauka), \$100,000 (awarded to Russian Institution)
“Mass spectrometry analysis of protein phosphatase-1 regulatory subunits that participate
in replication of HIV-1”. The goal of this program is to start new research in Russia
under the leadership of invited former Russian scientist
Role: Invited Principal Investigator

Howard University Seed Grant 4/01/09 – 7/01/10
Howard University, \$25,000
“Ferroportin Q248H mutation as a potential risk factor for HIV-1-infected African
Americans”. The goal of this pilot grant is to generate preliminary data on the role of
ferroportin in HIV-1 replication and analysis of ferroportin Q248H mutation as risk factor
in HIV-1 –infected African-Americans.
Role: Principal Investigator

CRDF Program 12/01/08 – 11/30/10
Civilian and Research Development Foundation \$85,000
“Chemical optimization of the new inhibitors of HIV transcription toward lead like
properties.” The goal of this pilot project is developing collaboration between a US-based
Investigator and a Former Soviet Union Investigator to develop novel anti-retroviral
inhibitors
Role: US-based Principal Investigator

Howard University Start-up Fund (Nekhai - PI) 2/01/08-1/30/09
Targeting PP1 for the inhibition of HIV-1 transcription \$50,000
Role: PI

Howard University RCMi Program (Nekhai -PI) 8/01/06 – 5/01/07
\$12,000
“Protein Phosphatase-1 as a New Target for Anti-HIV-1 Retroviral Therapeutics”
Role : PI

R21 AI056973 (Nekhai- PI)	7/01/2003 –6/30/2007
Regulation of HIV-1 transcription by CDK2	\$240,000
Role: PI	
R21 AI56973-01 S1 (Nekhai- PI)	6/01/2004 –6/30/2006
Supplement “Regulation of HIV-1 transcription by CDK2” for a Ph.D. candidate Nicolas Epie.	\$60,000
Role: PI	
GWU Faculty Research Enhancement Fund (Nekhai- PI)	02/1/98 – 1/31/99
Purification and characterization of HIV-1 Tat associated CAK activator	\$60,000
Role: PI	
Children’s National Research Institute (Nekhai -PI)	10/1/97 – 10/1/98
Research Advisory Council (RAC)	\$20,000
Effect of cell membrane-permeable peptides containing the double-stranded RNA binding domain of PKR on a reporter gene expression under control of HIV-1 LTR in cultured cells	
Role: PI	

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 Kovalsky “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 Kovalsky “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, Vasani 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 HHH, 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, Vasani 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, Ezekekwa 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 Severance. 2022. *Mol. Neurobiology.* 59(2):1088-1097. PMID: PMC8857174
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- 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
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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.
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5. Petryshyn, R., **Nekhai, S.**, and E. Perez-Albuerne. RNA-dependent protein kinases. 2001. *In: mRNA binding proteins, Ed. K. Sandberg and S. Mulrone.*

Media Highlights

1. Combined biomarker panel could speed diagnosis of chronic kidney disease in SCD. American Society for Hematology Clinical News, April 2023. <https://ashpublications.org/ashclinicalnews/news/7032/Combined-Biomarker-Panel-Could-Speed-Diagnosis-of?searchresult=1>
2. Renal and Urology News mentioned ceruloplasmin discovery as a potential kidney disease biomarker in patients with Sickle Cell Disease (January 2018): <http://www.renalandurologynews.com/chronic-kidney-disease-ckd/sickle-cell-anemia-ceruloplasmin-a-possible-marker-kidney-disease/article/711723/>
3. Hemispherix press release: <http://www.hemispherix.net/content/investor/default.asp?goto=809>

4. Editorial by Anette Breindl (Editorial).” As the Ebola death toll continues to rise, experimental drug Zmapp gets trial by fire.” 2014. Bioworld Today. 25(150):7-9.
5. Overview by Tracy Bass “This week in therapeutics.” 2014. SciBX 7(29):15.
6. CBS interview: <http://www.wusa9.com/story/news/health/health-alert/2014/09/11/ebola-treatment-howard-university-researcher/15449653/>
7. Article by Tina Reed. “Howard University’s accidental Ebola researcher sees interest, funding on rise as crisis flares in Africa.” Washington Business Journal, August 29, 2014. (<http://www.bizjournals.com/washington/blog/2014/08/howard-university-s-accidental-ebola-researcher.html?page=all>)
8. Radio WHUR 96.3 : <http://www.whur.com/podcasts/insight-segment/the-daily-drum-8-11-14-ebola/>

Poster presentations (2010-present)

1. Ivanov A., Ammosova T., Lin X. and **Nekhai S.** HIV-1 Tat Facilitates KAP1 phosphorylation by Interacting with PP1. Cold Spring Harbor Retroviruses meeting. May 25, 2023.
2. Jerebtsova M., Ahmad A., Afangbedji N., Taylor J.G. and **Nekhai S.** Induction of macrophages matriptase and activation of macrophage stimulating protein 1 in sickle cell anemia - related chronic kidney disease. American Society for Physiology Summit, April 20-23, Long Beach, CA
3. Alejandro J. A., Ivanov, A., Jerebtsova M, and **Nekhai S.** Protein Phosphatase-1 Binds to HIV-1 Promoter. Howard University Research Day, April 24, 2023.
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100. Santos, S., Obukhov, Y., Nekhai, S., Bukrinsky, M. and S. Iordanskiy: HIV-1 Virions incorporate MCM DNA helicase which modulates viral replication in the newly infected cells. *CROI 2013: 20th Conference on Retroviruses and Opportunistic Infection*, March 3-6, 2013, Atlanta, GA.

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105. Nekhai, S., Kumari, N., Foster, A., Diaz, S., Kovalsky, D., Gordeuk, V. R., & Dhawan, S. (2013, May). HIV-1 INFECTION AND IRON: ROLE OF HEME-OXYGENASE-1 AND FERROPORTIN. In AMERICAN JOURNAL OF HEMATOLOGY (Vol. 88, No. 5, pp. E123-E123). 111 RIVER ST, HOBOKEN 07030-5774, NJ USA: WILEY-BLACKWELL.
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109. Kumari N, Kovlasky D., Breuer D., Niu X., and **Nekhai, S.** (2013). Iron depletion by iron chelators or ferroportin inhibits HIV-1 through the induction of HIF1 α , p21 and I κ B α and the inhibition of CDK9 and CDK2. *Frontiers in Retrovirology*, September 2013, Cambridge, UK
110. Kumari, N., Xu, M., Foster, A., Diaz, S., Kovalsky, D., Gordeuk, V.R, Dhawan, S., and **Nekhai, S.** (2013) HIV-1 infection and iron: role of heme-oxygenase-1 and ferroportin. International BioIron Society meeting, April 2013, London, UK
111. Santos, S., Obukhov, Y., **Nekhai, S.**, Bukrinsky, M., and Iordanskiy, S. (2012) HIV-1 Virions Hijack Potential Cell Type-specific Modulators of the Early Stages of Infection from Virus-producing Cells. CROI, Seattle, March 2012
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113. Kumari, N., Comby, K., Rotimi, J., Kovalsky, D., Dhawan, S., and **Nekhai, S.** (2012) Novel Polypyrrrole (PPY) based Iron Chelators Induce Expression of I κ B α and Heme Oxygenase-1 and Inhibit HIV-1. XIX International AIDS Conference, Washington DC, July 2012

114. Ammosova, T., Obukhov, Y., Yedavalli, V.R.K., Beullens, M., Bollen, M., Kovalsky, D., Jeang, K.-T., and **Nekhai, S.** (2012) Small molecules interacting to Protein Phosphatase-1 Inhibit HIV-1 Transcription. XIX International AIDS Conference, Washington DC, July 2012
115. **Nekhai, S.** (2012) Inhibition of HIV-1 in Sickle Cell Disease. OMICS Virology, Las Vegas, NV August 2012
116. **Nekhai, S.**, Kumari, N., Xu, M., Foster, A., Diaz, S. and Gordeuk, V.R. (2012) Ferroportin Q248H Mutation Protects From HIV-1 Infection in Vitro. 54th ASH Annual Meeting and Exposition, Atlanta, GA, December 2012
117. **Nekhai, S.** (2012). Hepcidin, ferroportin, interleukin-6 and aggressive autoimmune systemic response. Seminar on macrophage activation syndrome. St. Petersburg, Russia, May 2012
118. Kumari, N., , Xu, M., Kovalsky, D., Dhawan, S., and **Nekhai, S.** (2012) Novel 2-Phenyl-1-Pyridin-2yl-Ethanone (PpY) Based Iron Chelators Increase Expression of Ikb α and Heme Oxygenase-1 and Inhibit HIV-1. 54th ASH Annual Meeting and Exposition, Atlanta, GA, December 2012
119. Gordeuk, V.R., Zhang, X., Zhang, W., Ma, S.-F., Miasniakova, G., Sergueeva, A., Ammosova, T., Xu, M., **Nekhai, S.**, Prchal, J. T., Wade, M., Garcia, J.G.N., and Machado, R.F. (2012) Iron Deficiency Modifies Gene Expression Variation Induced by Augmented Hypoxia Sensing. 54th ASH Annual Meeting and Exposition, Atlanta, GA, December 2012
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121. Gordeuk, V.R., Zhang, X., Zhang, W., Ma, S.-F., Miasniakova, G., Sergueeva, A., Ammosova, T., Xu, M., **Nekhai, S.**, Prchal, J. T., Wade, M., Garcia, J.G.N., and Machado, R.F. (2012) The Hypoxic Response and Altered Gene Expression in Patients with Sickle Cell Disease. 54th ASH Annual Meeting and Exposition, Atlanta, GA, December 2012
122. Obukhov, Y., Ammosova, T., and **Nekhai, S.** (2012). Mass spectrometry detection and biochemical analysis of phosphorylation sites of proteins involved in HIV-1 transcription activation. 13th RCM International Symposium on Health Disparities, San Juan, Puerto Rico, December 2012.
123. Ammosova, T., Obukhov, Y., Niu, X., Yedavalli, V.R.K., Beullens, M., Bollen, M., Kovalsky, D., and **Nekhai, S.** (2012). Small molecules bind to PP1 and inhibit HIV-1 transcription. 13th RCM International Symposium on Health Disparities, San Juan, Puerto Rico, December 2012.
124. Niu, X., Jerebtsova, M., Kumari, N., Xu, M., de Melo, G. B. A., Jeang, K.-T., and **Nekhai, S.** (2012). HIV-1 resistant macrophages generated from human induced pluripotent stem cells. 13th RCM International Symposium on Health Disparities, San Juan, Puerto Rico, December 2012.
125. Ammosova, T., Obukhov, Y., Niu, X., Yedavalli, V.R.K., Beullens, M., Bollen, M., Kovalsky, D., and **Nekhai, S.** (2012). Small molecules bind to PP1 and inhibit HIV-1 transcription. 13th RCM International Symposium on Health Disparities, San Juan, Puerto Rico, December 2012.

126. **Nekhai, S.**, Kumari, N., Ammosova, T., Gordeuk, V.R., and Dhawan, S. (2012) Inhibition of HIV-1 in Sickle Cell Disease. 13th RCMI International Symposium on Health Disparities, San Juan, Puerto Rico, December 2012.
127. Breuer, D., Kotelkin, A., Ammosova, T., Rotimi, J., Roane, P., Gordeuk, V.R. and **Nekhai, S.** (2011) Inhibition of CDK2 affects CDK9 and inhibits HIV-1. *The FASEB Journal*. 2011;25:698.1.
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129. Ammosova, ., Yedavalli, V.R.K., Jerebtsova, M., Eynde, A. V., Beullens, M., Bollen, M., Jeang, K.-T. and **Nekhai, S.** (2011) Expression of PP1 inhibitor inhibits CDK9 and HIV-1 transcription *The FASEB Journal*. 2011;25:756.1)
130. Debebe, ZK, Karla, PK, Ashenafi, M, Byrnes, M., Ammosova, T., Kalinowski, DS, Lovejoy, DB, Jerebtsova, M, Gordeuk, VRG, Richardson, D, and S. **Nekhai** (2010) Validation of an HPLC method to measure the iron chelators Bp4eT and Bp4aT in culture media and its application to study drug transport using Caco-2 monolayers. America Association of Pharmaceutical Scientists, San Francisco, CA.
131. Breuer, D., Kotelkin, A., Ammosova, T., Rotimi, J., Roane, P., Gordeuk, V.R. and **Nekhai, S.** (2010) Inhibition of CDK2 affects CDK9 activity and phosphorylation and inhibits HIV-1. Annual meeting on Retroviruses. Cold Spring Harbor Laboratory. Poster.
132. **Nekhai, S.** Targeting PP1 for the inhibition of HIV-1. (2010) Annual NIGMS Meeting, Bethesda, MD *Oral presentation*.
133. **Nekhai, S.** 1H4, a Non-competitive Protein Phosphatase-1 Inhibitor, Targets HIV-1 Replication. Howard University 1st Translation and Basic Research Conference. *Oral presentation* (2nd place)
134. **Nekhai, S.**, Comby, K., Kovalskyy, D., Debebe, Z., Rotimi, J., and V.R. Gordeuk (2010) Inhibition of HIV-1 by PpY iron chelators. Howard University 1st Translation and Basic Research Conference.
135. Breuer, D., Kotelkin, A., Ammosova, T., Rotimi, J., Roane, P., Gordeuk, V.R. and **Nekhai, S.** (2010) Inhibition of CDK2 affects CDK9 activity and phosphorylation and inhibits HIV-1. Howard University 1st Translation and Basic Research Conference.
136. Ammosova, T., Charles, S., Diaz, S., Kim, B., Gordeuk, V.R., and **Nekhai, S.** (2010) Inhibition of HIV-1 in Sickle Cell Disease-derived Peripheral Blood Mononuclear Cells Howard University 1st Translation and Basic Research Conference.
137. Xu, M., Foster, A., Diaz, S., **Nekhai, S.**, and V.R. Gordeuk (2010) Reduced Sensitivity of the Ferroportin Q248H Mutant to Low Concentrations of Hepcidin. Howard University 1st Translation and Basic Research Conference.
138. Obukhov, Y., Klotchenko, SA, Artamonova, TO, Ammosova, T., Washington, K., Jerebtsova, M., Khodorkovskii, MA, Orlov, Yu. N. and **Nekhai, S.** (2010) NIPP1 targets PP1 to RNA Polymerase II. 12th RCMI International Symposium on health disparities. Nashville, TN.
139. Ammosova, T., Platonov, M., Yedavalli, V.R.K., Gordeuk, V.R., Jeang, K.T., Kovalskyy, D. and **Nekhai, S.** (2010) 1H4, a Novel Protein Phosphatase-1 Inhibitor,

Targets HIV-1 Replication. 12th RCMI International Symposium on Health Disparities. Nashville, TN.

140. Ammosova, T., Charles, S.M., Rotimi, J., Gordeuk, V.R., and **S. Nekhai** (2010) Inhibition of HIV-1 in Sickle Cell Disease-derived Peripheral Blood Mononuclear Cells. (2010) 12th RCMI International Symposium on health disparities. Nashville, TN.
141. Breuer, D., Kotelkin, A., Ammosova, T., Rotimi, J., Roane, P., Gordeuk, V.R. and **Nekhai, S.** (2010) Inhibition of CDK2 affects CDK9 activity and phosphorylation and inhibits HIV-1. 12th RCMI International Symposium on health disparities. Nashville, TN.

Lectures/Invited Speeches

- 04/12/2023 Quantitative Proteomic Approach to Identify Markers of Chronic Kidney Disease in SCD, Research Infrastructure Consortium Workshop, 2023 RCMI Consortium National Conference, April 13, 2023
- 04/03/2023 HIV-1 Infection in Sickle Cell Disease, NIH Drug Resistance Program (DRP) Think Tank, April 3, 2023.
- 03/31/2023 HIV-1 Infection in Sickle Cell Disease, Howard University Department of Pediatrics Grand Rounds, March 31, 2023
- 03/14/2023 Use of Radioactivity in Research, Annual Radiation Safety training, Howard University, March 14, 2023
- 11/17/2022 APT Requirements at Howard University College of Medicine, Department of Medicine retreat.
- 11/14/2022 APT Requirements at Howard University College of Medicine, new faculty orientation meeting at College of Medicine.
- 10/19/22 Research Opportunities at Howard University, presentation for medical fellows at Department of Medicine, Howard University
- 09/19/22 Development of Small Molecule Inhibitors for HIV-1, Ebola Virus and SARS CoV-2, Howard University Department of Medicine Grand Rounds
- 06/16/22 Sickle Cell Day presentation of the former Center Director, Howard University (on zoom)
- 04/27/2022 Sickle Cell hemoglobin induces antiviral response in Sickle Cell Disease. Howard University Research Day.
- 03/23/2022 Ebola Virus Phosphoproteomics and Role of Protein Phosphatase-1 in Capsid Formation. RCMI external advisory committee meeting.
- 03/13/2022 Use of radioactivity in research. Annual radiation safety meeting, Howard University.
- 12/08/2021 HIV-1 infection in sickle cell disease. St. Petersburg State University invited lecture (on zoom)
- 10/19/2021 HIV-1 infection in sickle cell disease and Sickle Cell Trait. Grand Rounds, Department of Medicine, Howard University
- 08/25/2021 HIV-1 infection in sickle cell disease and sickle cell trait. Nigerian Society for Haematology and Blood Transfusion, Port Harcourt, Nigeria

- 07/14/2021 Virus phosphoproteomics and adaptation to PP1-targeting 1E7-03 compound Indicates the PP1 role in capsid formation. 7th International Caparica Conference on Analytical Proteomics (ICAP) 2021
- 05/25/2021 Proteomic profile of tears for differential diagnostics of uveitis. Symposium “Interdisciplinary treatment of uveitis: problems of diagnostics and therapy.” St. Petersburg, Russia.
- 03/25/2021 Global phosphoproteomic analysis of SARS CoV-2 virions. RCMI National Meeting
- 03/21/2021 Use of radioactivity in research. Howard University radiation safety workshop.
- 03/06/2021 Restriction of HIV-1 infection in sickle cell trait. Conference on Retroviruses and Opportunistic Infections (CROI)
- 03/11/2020 Use of radioactivity in research. Howard University radiation safety workshop
- 02/04/2020 HIV-1 Restriction in Sickle Cell Disease: Role of Iron Metabolism and Hypoxia. Invited lecture, George Mason University
- 12/07/2020 Urinary Proteomics and Sickle Nephropathy. OMICS in Hematology Workshop, American Society for Hematology annual meeting (on-line).
- 06/15/2020 Ebola Virus Adaptation to PP1-targeting 1E7-03 Compound Enhances PP1 binding to NP and Reduces Capsid Formation. American Society for Virology (online).
- 03/11/2020 Use of radioactivity in research. Howard University radiation safety workshop
- 02/04/2020 HIV-1 Restriction in Sickle Cell Disease: Role of Iron Metabolism and Hypoxia. Invited lecture, George Mason University
- 09/01/2019 Urinary Biomarkers of Sickle Cell Anemia Associated with Chronic Kidney Disease. IV International Caparica Conference on Urine Omics and Nephrology, Lisbon, Portugal
- 08/29/2019 Bioanalytical-Proteomics Core overview. HU RCMI Advisory committee meeting. Howard University.
- 05/08/2019 Effect of Auranafin on Ebola and Marburg viruses. Seminar at Howard University, May 8, 2019
- 05/07/2019 Research at Center for Sickle Cell Disease: introduction for Roland B Scott Symposium. Howard University
- 05/01/2019 Development of antiviral small molecules against Ebola and Marburg viruses. Howard University Precision Medicine Symposium.
- 04/18/2019 Targeting protein phosphatase-1 and CDK2 for HIV-1 inhibition. Department of Medicine seminar series, Howard University.
- 03/27/2019 Use of radioactivity in research. Howard University radiation safety workshop.
- 02/05/2019 HIV-1 restriction in Sickle Cell Disease: role of iron metabolism and hypoxia. Invited lecture, Albert Einstein University, New York, NY.
- 01/31/2019 Iron metabolism in Sickle Cell Disease. Invited lecture, Nemours Children’s Hospital, Wilmington, DE.

- 01/29/2019 Sergei Nekhai. Iron overload and chronic kidney disease in patients with sickle cell disease. Department of Medicine retreat.
- 01/15/2019 Targeting HIV-1 Tat for HIV-1 transcription inhibition. DC CFAR interdisciplinary seminar. Howard University.
- 07/12-14/2018 Invited presentations and Session Chair, African Hematological Congress, Kintele, Brazzaville, Republic of Congo, July 12-14, 2018
- 06/15/2018 Quantitative Proteomic Approach to Identify Biomarkers of Kidney Disease in Sickle Cell Disease Patients, Uniformed Services University, MD.
- 05/23/2018 How to get funded, perspectives, strategy and advice, annual Sickle Cell Center retreat, Washington DC
- 05/16/2018 HIV-1 Restriction in Sickle Cell Disease: Role of Iron and Hypoxia. Invited lecture, National Institute of neurological Disorders and Stroke, NIH, invited lecture.
- 04/16/2018 Upregulated Iron Metabolism Induces Intrinsic HIV-1 Restriction in Sickle Cell Disease, Keystone Symposium, Whistler, Canada
- 04/04/2018 Quantitative Proteomic Approach to Identify Biomarkers of Kidney Disease in Sickle Cell Disease Patients. Computational Research @Howard University Symposium.
- 01/19/2018 HIV-1 Restriction in Sickle Cell Disease: Role of Iron and Hypoxia, University of Toronto, invited lecture.
- 09/18/2017 PP1 as a Target for Antiviral Small Molecules Against Ebola and Marburg Infections. 3rd Border Biomedical Research Center Symposium. El Paso, TX
- 11/13/2017 Targeting protein phosphatase-1 for inhibition of Ebola and Marburg viruses. Updates from project 3. Center for Excellence in translation Research reverse site meeting. NIAID, NIH.
- 06/06/2017 Protein phosphatase-1 as a target for antiviral small molecules against HIV-1 and Ebola viruses. Teleconference presentation for investors, Howard University.
- 05/03/2017 Pathogenesis of Sickle Cell Disease: Implications for Viral and Bacterial Infections and Renal Dysfunction. Presentation for sickle cell disease interest group. Howard University Cancer Center.
- 04/20/2017 Presentations for Proteomics Open House for DC CFAR proteomics users, Howard University HUIRB
- 04/03/2017 Protein phosphatase-1 as a target for antiviral small molecules against HIV-1 and Ebola viruses. Children's National Medical Center, Invited lecture
- 02/28/2017 Protein phosphatase-1 as a target for antiviral small molecules. HIV-1 Cure online seminar for BELIEVE investigators.
- 05/04/2016 Second Basic Research Conference, DC CFAR, Howard University, DC (featured Proteomics Core services)
- 05/13/2016 Targeting Ebola virus replication with phosphorylation inhibitors, RTRN cluster presentation

- 04/29/2016 Use of radioactivity in Ebola Studies, Howard University radioactivity users refreshing course
- 04/08/2016 NHLBI P50 site visit presentation
- 04/04/2016 RCMI Computation biology meeting, Christian S. Parry (presenter) and Sergei Nekhai. Structural and biophysical studies of *Ebolavirus* proteome toward drug discovery.
- 04/04/2016 RCMI EAC meeting presentation
- 01/14/2016 HIV-1, Ebola virus and Sickle Cell Disease Studies – an Overview, Howard University Department of Medicine seminar series presentation
- 12/03/2015 How to SCORE an RO1: perspective, strategy and advice. “Successes, Challenges, and Opportunities in the Research Environment” MBRS-Support of Competitive Research (SCORE) Program SCORE SC1, SC2 and SC3 Principal Investigators, NIH, December 3, 2015
- 11/23/2015 HIV-1 restriction in Sickle Cell and Ferroportin Disease, WIHS investigators meeting. Georgetown University, Washington DC
- 09/18/2015 Proteomic analysis of tears from JIA patients with Uveitis. Interdisciplinary conference on Rheumatoid Arthritis, September 17-19, 2015. St. Petersburg, Russia
- 08/11/2015 “Project 3 report: Small Molecules Disabling Dephosphorylation of Ebola and Marburg Virus VP30” CETR annual meeting, Ichan School of Medicine at Mt. Sinai, NY
- 06/18/2015 Overview of the Sickle Cell Center programs and research (Meeting with Congo delegation, Howard University)
- 06/17/2015 Research at the Center for Sickle Cell Disease, World Sickle Cell Disease Day Conference, Howard University
- 06/08/2015 Protein phosphatase-1 as a target for small molecules against HIV-1 infection. OMICS Retrovirology and Novel Drugs, June 08-09, 2015, Chicago, IL
- 05/28/2015 Does Sickle Cell Disease protect from HIV-1 infection? (Open World Meeting with Russian Epidemiologists, Howard University)
- 05/18/2015 Development of Ebola virus inhibitors, meeting of potential cross collaborators, Howard University)
- 05/15/2015 First Basic Research Conference, DC CFAR, Howard University, DC (featured Proteomics Core services)
- 04/30/2015 Overview of the Sickle Cell Center programs and research (Meeting with representatives from NASA and Center for Advanced Science in Space (CASIS), Howard University)
- 04/16/2015 Targeting Protein Phosphatase-1 for Ebola virus inhibition (Howard University Research Day, Washington DC)
- 03/27/2015 Presentation of Sickle Cell Disease Center research for Russian HIV-1 Health workers (Howard University, Washington DC)
- 03/08/2015 Does Sickle Cell Disease Protect from HIV-1: Implication for Novel Viral Regulatory Mechanisms? (Department of Microbiology seminar, Howard University, Washington DC)

- 11/17/2014 Pathogenesis of Sickle Cell Disease: Implications for Viral and Bacterial Infections and Renal Dysfunction ? (CHaRM seminar series, Howard University, Washington DC)
- 10/20/14 Pathogenesis of Sickle Cell Disease: Implications for Viral and Bacterial Infections and Renal Dysfunction (Dr. Jeffrey Kopp laboratory seminar, NIDDK, NIH)
- 10/09/14 Targeting Protein Phosphatase-1 for Ebola virus inhibition (Department of Biochemistry seminar, Howard University, Washington DC)
- 09/29/14 Targeting Protein Phosphatase-1 for Ebola virus inhibition (Department of Biochemistry, University of Leuven, Belgium)
- 08/06/14 Presentation of Sickle Cell Disease Center research for NIH visitors (Howard University, Washington DC)
- 07/31/14 Small molecule inhibitors for Ebola virus (Mt Sinai School of Medicine, New York, NY)
- 07/18/14 Targeting protein phosphatase-1 for Ebola virus inhibition, FASEB meeting on Protein Phosphatases, July 20-25, Nassau, The Bahamas
- 03/28/14 Introduction into Proteomics, CFAR Invited lecture, The George Washington University, Washington DC
- 11/21/13 Role of heme-oxygenase-1 and ferroportin in HIV-1 infection, OMICS Virology 2013 meeting (Baltimore, November 21, 2013)
- 09/24/13 Novel inhibitors and activators of HIV-1, Biomedical Center for AIDS and Cancer research, St. Petersburg, Russia
- 09/23/13 Inhibitors and activators of HIV-1 transcription, National AIDS Center, St. Petersburg, Russia
- 09/18/13 Proteomic analysis of Tears in children with uveitis, International Workshop on Arthritis and Uveitis, St. Petersburg, Russia
- 7/25/13 USA-Russia partnership in AIDS, Satellite mini symposium for AIDS International Meeting
- 07/16/13 Proteomic approaches in HIV-1 and sickle cell disease research , Department of Obstetrics and Gynecology, Howard University
- 05/13/13 Presentation for visiting officials from Western Africa, Howard University
- 03/18/13 Use of radioactivity in research, Annual Radiation Safety Meeting, Howard University
- 04/01/13 Novel inhibitors of Ebola virus, Howard University Research Day
- 03/06/13 Inhibitors of HIV-1 and Ebola viruses, Temple University, Philadelphia, PA
- 12/13/12 Session speaker: Protein phosphatase inhibitors for HIV-1 and Ebola viruses, 13 RCMI meeting, San Juan, Puerto Rico
- 12/10/12 Workshop: OMICS in Sickle Cell Disease, 13 RCMI meeting, San Juan, Puerto Rico
- 11/29/12 Does SCD protect from HIV-1? Lecture for medical fellows, Department of Medicine, Howard University
- 11/12/12 Novel Ebola virus inhibitors, Integrated Research Facility, NIAID, Fort Detrick, MD

11/02/12 Session speaker: Protein phosphatase inhibitors for HIV-1 and Ebola viruses, Host Pathogen Interactions in Biodefense and Emerging Infectious Diseases, George Mason University, VA

10/18/12 HIV-1 inhibition in sickle cell disease, Uniformed Services University, Bethesda, MD

08/21/12 Session speaker: HIV-1 inhibition in Sickle Cell Disease , OMICS Virology, Las Vegas, NV

06/18/12 Inhibitors of HIV-1 transcription, George Mason University, Manassas VA

05/24/12 Session Speaker: Role of iron regulatory pathway in rheumatoid arthritis development, Rheumatoid Juvenile Arthritis, St. Petersburg, Russia

05/09/12 Novel Ebola virus inhibitors, Howard University Clinical Conference

03/18/12 Mountain Rescue in Russia: historic overview, Annual Radiation Safety Meeting, Howard University

10/19/11 HIV-1 and sickle cell disease, FDA, Bethesda, MD

09/23/11 Viral immunology, St. Petersburg Polytechnic University, St. Petersburg, Russia

09/22/11 Role of oxygen and iron in HIV-1 replication, St. Petersburg Pediatrics Academy, St. Petersburg, Russia

09/16/11 Inhibition of HIV-1 by PP1-targeted compounds, Catholic University of Leuven, Leuven Belgium

09/15/11 Session Speaker, FASEB Research Conference, Lucca, Italy

04/11/11 Session speaker, ASMSB meeting, Washington DC

03/21/11 Deans Conference, Howard University College of Medicine

03/07/11 Role of iron in HIV-1 replication, George Mason University, Manassas VA

10/22/10 Emerging Technology Forum, MITRE, McLean VA

10/05/10 Role of CDK2 in HIV-1 transcription regulation, St. Petersburg Technical University, St. Petersburg, Russia

10/07/10 Targeting PP1 for HIV-1 inhibition, Petersburg Pediatrics Academy, St. Petersburg, Russia

09/21/10 Small molecule PP1 inhibitors for HIV-1 inhibition, University of Texas at El Paso

06/23/10 The 24th AIDS-related systems and drug design, NIGMS

04/30/10 Howard University 1st Translation and Basic Research Conference

11/19/09 St. Petersburg Technical University, St. Petersburg, Russia

11/18/09 St. Petersburg Nuclear Physics Institute, Gatchina, Russia

11/13/09 Petersburg Pediatrics Academy, St. Petersburg, Russia

09/23/09 Enamine ChemBio Center, Kyiv, Ukraine

09/24/09 University of Kyiv, Kyiv, Ukraine

01/15/09 National Cancer Institute, NIH

06/23/08 NIGMS Symposium, NIH
 05/05/08 University of Hawaii, Honolulu
 02/12/08 Sequoia Inc., Gaithersburg, MD
 02/14/08 Department of Biochemistry and Molecular Biology, Howard University

 06/11/07 University of South California, Los Angeles
 04/06/07 University of Alaska, Anchorage and Fairbanks
 12/14/06 10th International RCMI Symposium, San Juan, Puerto Rico
 11/07/06 University of Illinois at Chicago
 04/28/06 National Institute of Diabetes & Digestive & Kidney Diseases
 11/15/05 6th Annual Symposium on antiviral drug resistance
 7/17/04 Protein Phosphatases, Snowmass, Colorado
 10/07/03 West Cost Retroviruses Meeting
 7/05/03 Europhosphatase 2003, Barcelona, Spain
 5/09/03 BioIron 2003, Washington, DC
 4/12/03 Experimental Biology, San Diego, CA
 5/25/02 Cold Spring Harbor Meeting on Retroviruses, Long Island, N.Y.
 01/27/00 Howard University, Washington DC
 01/11/00 George Washington University, Washington DC
 12/16/99 Catholic University, Leuven, Belgium
 5/25/98 Cold Spring Harbor Meeting on Retroviruses, Long Island, N.Y.
 5/25/97 Cold Spring Harbor Meeting on Retroviruses, Long Island, N.Y.
 02/16/97 Children's National Medical Center, Washington D.C. 4th
 05/25/96 Children's National Medical Center, Washington D.C.
 02/10/96 International Conference "AIDS, Cancer and Related Problems", St. Petersburg, Russia.
 02/03/95 Children's National Medical Center, Washington D.C.