CURRICULUM VITAE

Sudha Sharma, PhD
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CURRENT APPOINTMENT

Professor (Tenured) Director (Interim)	Department of Biochemistry and Molecular Biology Human Genome Center Howard University College of Medicine 520 W Street NW Washington, DC 20059

EDUCATION AND RESEARCH TRAINING

2007-2008	Research Fellow, Department of Pathology, Harvard Medical School, Boston
2002-2007	Visiting Fellow, Laboratory of Molecular Gerontology, National Institute on Aging, NIH, Baltimore
1998	Ph.D. in Biochemistry, Banaras Hindu University, India
1993	M.Sc. in Biochemistry, Banaras Hindu University, India
1991	B.Sc. with Honors in Chemistry, Banaras Hindu University, India

APPOINTMENT HISTORY

July 1, 2019	Full Professor with indefinite tenure, Department of Biochemistry and Molecular Biology, College of Medicine, Howard University
Sep 1, 2017-	Interim Director, National Human Genome Center, Howard University
July 1, 2014-	Associate Professor (Tenured), Department of Biochemistry and Molecular Biology, College of Medicine, Howard University
2011-2014	Associate Professor (Tenure-Track), Department of Biochemistry and Molecular Biology, College of Medicine, Howard University, Washington
2008-2011	Associate Professor (Tenure-Track), Department of Biology, City College of the City University of New York (CUNY), New York
2007-2008	Research Fellow, Department of Pathology, Harvard Medical School, Boston
2002-2007	Visiting Fellow, Laboratory of Molecular Gerontology, National Institute on Aging/NIH, Baltimore
2000-2004	Assistant Professor (Tenure-Track), Department of Biochemistry, School of Life Sciences, University of Hyderabad, India
1999-2000	Research Associate, Cytogenetics Laboratory, Department of Zoology, Banaras Hindu University, India
1995-1998	Senior Research Fellow, Department of Biochemistry, Banaras Hindu University, India
1993-1995	Junior Research Fellow, Department of Biochemistry, Banaras Hindu University, India

HONORS AND AWARDS

2017	*Outstanding Faculty Researcher*, Howard University College of Medicine
2014	*Minority Scholar in Cancer Research*- American Association of Cancer Research (AACR)
2014	Recognized by Howard University as "*one* of the ten STEM Stars"
2013	*Press Release*, by College of Medicine, Howard University
2007	*Women Scientist Achievement Award*, National Institute on Aging (NIH)
2005	*Fellows Award for Research Excellence,* NIH
2002-2007	*Visiting Fellowship*, NIH
2001-2002	*Fast Track for Young Scientists* Research Award, Department of Science and Technology (DST), Government of India
1999-2000	Post-doctoral *Research Associate,* Council for Scientific and Industrial Research (CSIR), Govt of India
1994	*National Eligibility* for Lectureships by the CSIR and the University Grants Commission (UGC), Govt of India
1993-1998	Pre-doctoral *Junior Research Fellowship* (1993-1995) and *Senior Research Fellowship (1995-1998),* UGC, Govt of India
1993	*National Graduate Aptitude Test for Engineering* (UGC-GATE), Govt of India

RESEARCH GRANTS

ACTIVE

1. 1R25AG086106-01 (NIA/NIH); Allard, Duttaroy & Sharma (multi-PI); (05/07/24-04/31/29); **Role: Principal Investigator (PI);** Project Title: The Howard University Expanding Research in Alzheimer's Disease and Related Dementias Postbaccalaureate Research Education Program (HU-ERA-PREP)
2. Pilot Award of the DC CFAR's NIH award number (AI117970) (07/1/2026- 06/30/2027); **Role: PI;** Project Title: Werner Syndrome Helicase as a Host Determinant of HIV-1 Transcription and Viral Persistence

COMPLETED

3. NSF1832163 (08/1/2018- 07/31/2023); **Role: PI)** Project Title: Investigation of RECQ1 helicase in DNA transactions upon oxidative stress.
4. Canadian Institutes of Health Research (CIHR) (09/1/2017-08/31/2025); **Role: Co- Investigator**; PI: MR Akbari of the University of Toronto. Project Title: Investigating the Role of RECQL in Breast Cancer Susceptibility.
5. NIA/NIH 1R25 AG047843 (09/1/2014-08/31/2025); **Role: Investigator**; PI: Duttaroy; Title: Howard University's Advancing Diversity in Aging Research (HUADAR) program.
6. National Human Genome Research Institute/NIH (Intramural) (2020-2025); **Role: PI**. Project Title: Genetics of COVID-19 Susceptibility and Manifestation
7. HU-ADVANCE-IT Minigrant for (NSF ADVANCE HRD-1208880)(10/2014-9/2015); **Role: PI**; Title: Investigation of a putative regulator of metastasis in African American and Caucasian breast cancer
8. NIGMS/NIH 5SC1GM093999 (09/2010-08/2022); **Role: PI;** Title: Molecular analyses of RECQ1 functions in genome maintenance.
9. NIGMS/NIH supplement 3SC1GM093999-03S1 (9/2011-8/2014); **Role: PI;** New Grant support obtained in response to NOT-GM-08-130;
10. NIMHD/NIH G12MD007597 Pilot Project (3/2011-6/2013); **Role: New Faculty**; RCMI Grant (G12MD007597) PI: Dr. William Southerland
11. NCI U54CA137788/Pilot Project (09/01/2010-08/31/2012)**; Role: Co-PI.** Project Title: Role of RECQ1 in HR repair of DNA double-strand breaks. PI: Dr. Maria Jasin

REVIEW AND OTHER PROFESSIONAL ACTIVITIES

Research Grants Review: International

2026 Reviewer, French National Cancer Institute (INCa)
2024 Reviewer, Israel Science Foundation (ISF)
2023–24 Reviewer, Hevolution Foundation
2021 Reviewer, Breast Cancer Now (UK)
2021 Reviewer, OPUS Grant, National Science Centre (NCN), Poland
2020 Reviewer, Czech Science Foundation (GACR)
2019 Reviewer, PRELUDIUM Grant, National Science Centre (NCN), Poland
2018 Reviewer, Medical Research Council (MRC), United Kingdom
2017 Reviewer, Netherlands Organisation for Scientific Research (NWO), Netherlands
2017 Reviewer, PRELUDIUM Grant, National Science Centre (NCN), Poland
2017 Reviewer, POLONEZ Grant, National Science Centre (NCN), Poland
2016 Reviewer, HARMONIA Grant, National Science Centre (NCN), Poland

Research Grants Review: National

2026 Reviewer and Co-Chair, NIH Study Section, ZRG1 MGG-W (80)
2026 Reviewer, NIH Study Section, ZRG1 BTC-T (80)
2025 Reviewer, NIH Study Section, Molecular Genetics
2025 Reviewer, NIH Study Section, ZRG1 MGG-W (50) R
2024 Reviewer, NIH Study Section, TWD-A and SEP
2024 Reviewer, NIH Study Section, 2024/01 ZGM1 RCB-X (SU)
2024 Reviewer, NSF Molecular and Cellular Biology Division
2023–2026 Reviewer, New Jersey Department of Health (NJDOH) Cancer Program
2023–2026 Reviewer, Louisiana BoRSF Research Competitiveness Subprogram
2023 Reviewer, NIH Study Section, NIGMS K99/R00
2022–2023 Reviewer, Beckman Young Investigator Program
2022 Reviewer, NIH Study Section, (2022/05 ZGM1 TWD-X (KR))
2021 Reviewer, NIH Study Section (ZGM1 RCB-9 (CG))
2021 Reviewer, NIH Study Section (ZGM1 TWD-X PR)
2021 Reviewer, NSF (HSI 2021 Track 2 (IEP) Panel)
2020 Reviewer, NIH Study Section (2021_01/ZGM1 RCB-3 (CM))
2020 Reviewer, NIH Study Section (2020/10 ZGM1 RCB-7 (CM))
2020 Reviewer, Pilot Grant for Mays Cancer Center at UT Health San Antonio
2019 Reviewer, NIH Study Section (ZGM1 RCB-3 (SC) S)
2019 Reviewer, NIH Study Section (ZGM1 TWD-X(PR))
2019 Reviewer, NSF (HSI T1 PHD 2 Panel)
2018 Reviewer, NIH Peer-Review Study Section “Anonymization Project”
2016 Reviewer, NIH Study Section (NCI-SEP, ZCA1 RPRB-B (O1))
2016 Reviewer, NIH Study Section (NCI-SEP, ZCA1 RPRB-B(M2))
2015 Reviewer, NIH Study Section (NCI-SEP, ZCA1 RPRB-B(M2))
2015 Reviewer, NIH Study Section (CE)
2012 Reviewer, NSF Molecular and Cellular Biology Division
2012 Reviewer and Member (ad-hoc), NIGMS/ NIH Advisory Council

Review Panels for Fellowships: National

2026 Panelist and Chair, NIH Study Section TWD-A and SEP (Nov, 2026)
2023–26 Panelist, NSF Graduate Research Fellowship Program (NSF GRFP)
2024 Panelist, NIH Study Section TWD-A and SEP

2022–23 Panelist, National Defense Science and Engineering Graduate (NDSEG) Fellowship
2018–21 Panelist, American Fellowship, American Association of University Women (AAUW)
2016–19 Panelist, National Defense Science and Engineering Graduate (NDSEG) Fellowship
2015–17 Chair, Physical and Biological Sciences Sub-Panel, AAUW
2012–17 Panelist, International Fellowship, AAUW
2011–16 Panelist, NSF Graduate Research Fellowship Program (NSF GRFP)
2012 Panelist, National Defense Science and Engineering Graduate (NDSEG) Fellowship

Editorial Board Service

2021-2023 Member, Editorial Board of ***Molecular and Cellular Biology***
2018-present Member, Editorial Board of ***Cells***
2013-present Member, Editorial Board of ***Scientific Reports***

Invited Guest Editor

Current Opinions in Pharmacology (COPHAR), Cancer 2023
Cells: DNA Replication and Genetic Research: An Honorary Issue in Memory of Prof. James L. German (2023)

Peer-review of Manuscripts

2011-present Reviewer for various Journals, including Nature, PNAS, NAR, Cell Reports, etc.

TEACHING

Medical Course (M1)

2015 (Fall)-present ***Course Director*** and instructor for Molecules and Cells Unit 1a (MC1a)

Graduate Courses (representative)

General Biochemistry *(BIOC 101 and 170)*
Molecular Biology (*BIOC 270*)
Metabolic Regulation (*BIOC 272-01)*
Advanced Enzymology (*BIOC 240)*
Orientation to Research Laboratory *(BIOC 211)*
Directed Research (*BIOC 205*)
Co-coordinator of Graduate Seminar in Biochemistry (*BIOC 201*)

Undergraduate Course

Biology of Aging *(Bio 319)*, College of Arts and Sciences

MENTORING

Postdoctoral Fellows: 6
Graduate Students: 6+
Postbaccalaureate Fellows: 8
Undergraduate Students: 18+
High School Students (summer): 6
Medical Students: 20+

INTRAMURAL SERVICE

Department-wide Service

2026 Member, Search Committee for Recruiting 3 Tenure-Track &Educator Faculty
2019–present Member, Appointments, Promotion, and Tenure (APT) Committee
2021–23 Member, Graduate Studies Committee (3-year term)

2021	Organizer, 31st Annual Graduate Research Emphasis Day
2019–20	Chair, Appointments, Promotion, and Tenure (APT) Committee
2018–19	Member, Departmental Executive Committee
2015–16	Director, Graduate Studies Committee
2014	Organizer, 24th Annual Graduate Research Emphasis Day
2013–17	Member, PhD Dissertation Thesis Defense Committees
2013–16	Member, Graduate Studies Committee (3-year term)
2012–18	Member, Graduate Student Qualifying Examination Committees
2012–14	Co-coordinator, Departmental Seminar Series
2011–12	Member, Departmental Executive Committee

College of Medicine-wide Service

2026-present	Member, LCME Accreditation Committee-Curriculum
2026	Presenter, Faculty Tools Workhops (2)
2026	Reviewer, RWJF Research Re-Entry grant application
2025-present	Elected Member, Curriculum Committee
2020-2026	Elected Member, College-wide APT Committee (2 terms)
2020-	Principal Investigator, NIH-HU COVID-19 Genetic Study
2019-	Member, Search Committee, Neurology Chairperson
2018-present	Member, Promotions and Graduations Committee
2017-present	Interim Director, Human Genome Center
2015-present	Course Coordinator, Molecules and Cells Unit 1a
2015-2026	Presenter, Freshmen Orientation
2015-2016	Invited Member, Advancing Computational Biology at Howard University Symposium Planning Committee, RCMI
2014	Member, Strategic Planning Committee
2013-2016	Elected Member, Curriculum Committee
2012	Member, Search Committee for Director for the Center for Sickle Cell Disease

University-wide Service

2019-present	Member, Coordinating Committee, NIH-Howard Intramural Research Collaboration Project
2018	Invited Member, HHS-NIH SBIR/STTR Research Conference Planning Team
2016	Invited Reviewer, DoD's Research and Education Program for HBCU/MI Equipment/Instrumentation Solicitation
2015	Invited Reviewer, Limited Submission for NSF's Major Research Instrumentation Solicitation
2014-19	Judge, Poster and Oral Presentations, Howard University Research Day/Week
2014	Invited Participant, Howard University Research Retreat
2013-14	Member, Research Day Planning Committee

Other Significant Research, Education, and Outreach Activities

2022–present	Member, Women in Biochemistry and Molecular Biology (WiBMB) Committee, ASBMB
2021–present	Consultant, Quality Education for Minorities (QEM)
2020–present	Member, Scientific, Academic & Medical Council, Institute for Gene Therapies
2018–present	Member, International Reviewer Database, National Research Foundation of Korea
2015–present	Member, Advisory Board, American Federation for Aging Research (AFAR)
2015–present	Resource Person, NSF GRFP

2023	Panelist, Capitol Hill briefing of the Institute for Gene Therapies
2021	External Evaluator, Tenure application, University of Maryland
2020	Volunteer Researcher / NIH-HUIRC Collaborator, NCI, NIH
2020	External Evaluator, Tenure application, Catholic University
2019	External Evaluator, Tenure application, Indiana University–Purdue University
2018	Reviewer / External Examiner, PhD Thesis, Indian Institute of Science, India
2018	Judge, Poster Session, Indo-US Conference on Transcription, Chromatin Structure, DNA Repair, and Genomic Instability
2018	Judge, Science Fair, Hyde-Addison Elementary School, Washington DC
2017	Judge, Science Education, AACR Annual Meeting, Washington, DC

PEER-REVIEWED PUBLICATIONS

For the complete publication list, please see My Bibliography (#corresponding author)
https://www.ncbi.nlm.nih.gov/myncbi/sudha.sharma.1/bibliography/public/

1. Abujaber, R., Henry-Smith, C., and **Sharma, S#** (2026). From Genes to Lives: Integrating the Complexities of Primary Ovarian Insufficiency. **International Journal of Molecular Sciences**, 27(3), 1353. PMID: 38338631, PMCID: PMC10855239
2. **Sharma, S#**, Dhar, S., & Sengupta, S#. (2025). Balancing genome integrity and carcinogenesis: Insights into DNA damage response, repair pathways, and cancer therapies. **Current Opinion in Pharmacology**, 82, 102522. PMID: 38626573, PMCID: PMC11216503
3. Ford MKB, Hari A, Yeager M, Mirabello Lisa, Chanock S, Numanagić I, **COVNET Consortium**; Sahinalp SC (2025) Genotyping of selected germline adaptive immune system loci using short-read sequencing data. **Genome Res.** 35(9):2076-2086, PMID: 40764056 PMCID: PMC12401057 (*I am a Member of the COVNET Consortium*)
4. Zhou Q, Ghezelji M, Hari A, Ford MKB, Holley C; **COVNET Consortium**; Mirabello L, Chanock S, Sahinalp SC, Numanagić I (2024) Geny: A Genotyping Tool for Allelic Decomposition of Killer Cell Immunoglobulin-Like Receptor Genes. **bioRxiv** [Preprint]. https://doi.org/10.1101/2024.02.27.582413. PMID: 38529502, PMCID: PMC10962708 (*I am a Member of the COVNET Consortium*)
5. Lashen A, Al-Kawaz A, Jeyapalan JN, Alqahtani S, Shoqafi A, Algethami M, Toss M, Green AR, Mongan NP**, Sharma S**, Akbari MR, Rakha EA, Madhusudan S. (2024). Immune infiltration, aggressive pathology, and poor survival outcomes in RECQL helicase deficient breast cancers. **Neoplasia** 47:100957. PMID: 38134458 PMCID: PMC10777014
6. Banday AR,Stanifer ML, Florez-Vargas O, Onabajo O, Papenberg BW, Zahoor MA, Mirabello L, Ring TJ, Lee C-H, Albert PS, Andreakos E, Arons E, Barsh G, Biesecker LG, Boyle DL, Brahier MS, Burnett-Hartman A, Carrington A, Chang E, Choe PG, Chrisholm RL, Colli LM, Dalgard C, Dude CM, Edberg J, Erdmann N, Feigelson HS, Fonseca BA, Firestein GS, Gehring AJ, Guo C, Ho M, Holland S, Hutchinson AA, Im H, Irby L, Ison MG, Joseph NT, Kim HB, Kreitman RJ, Korf BR, Lipkin SM, Mahgoub SM , Mohammed I, Paschoalini GI, Pacheco JA, Peluso MJ, Rader DJ, Redden DT, Ritchie MD, Rosenblum B, Ross ME, Sant Anna HP, Savage S, **Sharma S**, Siouti E, Smith AK, Triantafyllia V, Vargas JM, Vargas JD, Verma A, Vij V, Wesemann DR, Yeager M, Yu X, Zhang Y, Boulant S, Chanock SJ, Feld JJ, Prokunina-Olsson L#. (2022). Genetic regulation of OAS1 nonsense-mediated decay underlies association with COVID-19 hospitalization in patients of European

and African ancestries. **Nature Genetics.** 54(8):1103-1116. PMID: 35835913 PMCID: PMC9355882

7. Mahmoodi A, Shoqafi A, Sun P, Giannakeas V, Cybulski C, Nofech-Mozes S, Masson JY, **Sharma S**, Samani AA, Madhusudan S, Narod SA, Akbari MR# (2022). High Expression of RECQL Protein in ER-Positive Breast Tumours Is Associated with a Better Survival. **Front Oncol.** 12:877617. PMID: 35712517; PMCID: PMC9195420
8. Debnath S, Lu X, Lal A, **Sharma S#** (2022). Genome-wide investigations on regulatory functions of RECQ1 helicase. **Methods**. PMID: 35231585; PMCID: in process. (*Invited article*)
9. Lu X, Redon CE, Tang W, Parvathaneni S, Bokhari B, Debnath S, Li XL, Muys BR, Song Y, Pongor LS, Sheikh O, Green AR, Madhusudan S, Lal A, Ambs A, Khan J, Aladjem MI*, **Sharma S#** (2021). Genome-Wide Analysis Unveils DNA Helicase RECQ1 as a Regulator of Estrogen Response Pathway in Breast Cancer Cells. **Mol Cell Biol.** PMID: 33468559 PMCID: PMC8088126
10. Debnath S, **Sharma S#** (2020). RECQ1 Helicase in Genomic Stability and Cancer. **Genes**;11(6): E622. PMID: 32517021; PMCID: PMC7348745.
11. Sharma P, Alsharif S, Bursch K, Parvathaneni S, **Sharma S**, and Chung BM# (2019). Keratin 19 regulates cell cycle pathway and sensitivity of breast cancer cells to cyclin dependent kinase inhibitors. **Scientific Reports**; 9(1):14650. PMID: 31601969; PMCID: PMC6787034
12. Parvathaneni S and **Sharma S#** (2019). The DNA repair helicase RECQ1 has a checkpoint-dependent role in mediating DNA damage responses induced by gemcitabine. **J Biol Chem.** 294(42):15330-1534. PMID:31444271; PMCID: PMC6802502
13. Bokhari B and **Sharma S#** (2019). Stress marks on the genome: Use or lose? **Int. J. Mol. Sciences** 20(2), 364. PMID:30654540; PMCID: PMC6358951
14. Li XL, Subramanian M, Jones MF, Chaudhary R, Singh DK, Zong X, Gryder B, Sindri S, Mo M, Schetter A, Wen X, Parvathaneni S, Kazandjian D, Jenkins LM, Tang W, Elloumi F, Martindale JL, Huarte M, Zhu Y, Robles AI, Frier SM, Rigo F, Cam M, Ambs S, **Sharma S**, Harris CC, Dasso M, Prasanth KV, Lal A. (2017). Long Noncoding RNA PURPL Suppresses Basal p53 Levels and Promotes Tumorigenicity in Colorectal Cancer. **Cell reports** 20(10):2408-2423. PMID: 28877474; PMCID: PMC5777516.
15. Lu X, Parvathaneni S, Madhusudan S, and **Sharma S#** (2017). RECQ1 expression is upregulated in response to DNA damage and in a p53-dependent manner. **Oncotarget** PMID: 28599317; PMCID: PMC5652675.
16. Woodrick J, Gupta S, Camacho S, Parvathaneni S, Choudhury S, Cheema A, Bai Y, Khatkar P, Erkizan HV, Sami F, Su Y, Schärer OD, **Sharma S#, and Roy R#** (2017). A new sub-pathway of long-patch base excision repair involving 5' gap formation. **EMBO J.** 36(11):1605-1622. PMID: 28373211; PMCID: PMC5452013. ***(Co-corresponding authors)***
17. Arora A, Parvathaneni S, Aleskandarany MA, Agarwal D, Ali R, Abdel-Fatah T, Green AR, Ball GR, Rakha EA, Ellis EA, **Sharma S# and Madhusudan S#** (2017). Clinicopathological and functional significance of RECQL1 helicase in sporadic breast cancers. **Molecular Cancer Therapeutics**. 16(1):239-250. PMID: 27837030; PMCID: PMC5222686 (***Co-corresponding authors)***

18. Lu X, Parvathaneni S, Li XL, Lal A, **Sharma S#** (2016). Transcriptome guided identification of novel functions of RECQ1 helicase. **Methods.** 108:111-7. PMID: 27102625; PMCID: PMC5035568 *(Invited article)*

19. Sami F, Gary RK, Fang Y, and **Sharma S#** (2016). Site-directed mutants of human **RECQ1** reveal functional importance of the zinc binding domain. **Mutation Research.** 790:8-18. PMID: 27248010; PMCID: PMC4967042

20. Sami F, Lu X, Parvathaneni S, Roy R, Gary RK, and **Sharma S#** (2015). RECQ1 interacts with FEN-1 and promotes binding of FEN-1 to telomeric chromatin. **Biochemical Journal.** 468(2):227-44. PMID: 25774876; PMCID: PMC4441847

21. **Sharma S#** (2014). An appraisal of RECQ1 expression in cancer progression. **Front. Genet.** 5:426. doi:10.3389/fgene.2014.00426. PMID: 25538733; PMCID: PMC4257099

22. Garige M and **Sharma S#** (2014). Cellular deficiency of Werner Syndrome protein or RECQ1 promotes genotoxic potential of hydroquinone and benzo[a]pyrene exposure. **International Journal of Toxicology** 33(5):373-81. PMID: 25228686; PMCID: PMC4194143

23. Li XL, Lu X, Parvathaneni S, Bilke S, Zhang H, Thangavel S, Vindigni A, Hara T, Zhu Y, Meltzer PS, **Lal A#,** and **Sharma S#** (2014). Identification of RECQ1-regulated transcriptome uncovers a role of RECQ1 in regulation of cancer cell migration and invasion. **Cell Cycle** 13(15):2431-2445. PMID: 24932474; PMCID: PMC24932474

24. Subramanian M, Francis P, Bilke S, Li XL, Hara T, Lu X, Jones MF, Walker RL, Zhu Y, Pineda M, Lee C, Varanasi L, Yang Y, Martinez LA, Luo J, Ambs S, **Sharma S**, Wakefield LM, Meltzer PS, Lal A# (2014). A mutant p53/let-7i axis regulated gene network drives cell migration, invasion and metastasis. **Oncogene** 34(9):1094-104. PMID: 24662829; PMCID: PMC4391367

25. Li XL, Hara T, Choi Y, Subramanian M, Francis P, Bilke S, Walker RL, Pineda M, Zhu Y, Yang Y, Luo Ji, Wakefield LM, Brabletz T, Park BH, **Sharma S**, Chowdhury D, Meltzer PS, Lal A# (2014). A p21/ZEB1 complex inhibits epithelial-mesenchymal transition through the miR-183-96-182 cluster. **Molecular and Cellular Biology** 34(3):533-50. PMID: 24277930; PMCID: PMC3911499

26. Sami F and **Sharma S#** (2013). Probing genome maintenance functions of human RECQ1. **Computational and Structural Biotechnology Journal** 6 (7): e201303014. PMCID: PMC3962141

27. Parvathaneni S, Stortchevoi A, Sommers JA, Brosh, RM Jr., **Sharma S#** (2013). Human RECQ1 interacts with Ku70/80 and Modulates DNA End-Joining of Double-Strand Breaks. **PLoS One** 8(5): e62481. PMID:23650516; PMCID: PMC3641083

28. Lu X, Parvathaneni S, Hara T, Lal A, and **Sharma S#** (2013). Replication Stress Induces Specific Enrichment of RECQ1 at Common Fragile Sites FRA3B and FRA16D. **Molecular Cancer** 12(1):29. PMID: 23601052; PMCID: PMC3663727

29. **Sharma S#**, Phatak P, Stortchevoi A, Jasin M, LaRocque JR (2012). RECQ1 plays distinct role in cellular response to oxidative DNA damage. **DNA Repair** 11(6):537-49. PMID:22542292; PMCID: PMC3420015

30. **Sudha Sharma#** (2011). Non-B DNA Secondary Structures and Their Resolution by RecQ Helicases. **Journal of Nucleic Acids**. 2011:724215. PMID: 21977309; PMCID: PMC3185257

31. Avvaru S, Rawtani N, Wu Y, Sommers J, **Sharma S**, Mosedale G, North P, Cantor SB, Hickson Ian, Brosh, RM Jr. (2011). Interaction between the helicases genetically linked to Fanconi anemia group J and Bloom's syndrome. **EMBO J.** 30(4):692-705.

32. **Sharma S**, Sommers JA, Brosh RM Jr. (2008). Processing of DNA Replication and Repair Intermediates by the Concerted Action of RecQ Helicases and Rad2 Structure-Specific Nucleases. **Protein Pept Lett.** 15:89-102.

33. **Sharma S** and Brosh RM Jr. (2008). Unique and important consequences of RECQ1 deficiency in mammalian cells. **Cell Cycle** 7:989-1000.

34. **Sharma S** and Brosh RM Jr. (2007). Human RECQ1 is a DNA damage responsive protein required for genotoxic stress resistance and suppression of sister chromatid exchanges. **PLoS ONE** 2: e1297.

35. *Gupta R, ***Sharma S**, Sommers JA, Kenny MK, Cantor SB, Brosh RM Jr. (2007). BACH1 helicase forms DNA damage inducible foci with RPA and interacts physically and functionally with the single strand DNA binding protein. **Blood** 110:2390-8. (***Co-first authors***)

36. Peng M, Litman R, Xie X, **Sharma S**, Brosh RM Jr., Cantor SB. (2007). The BACH1-MLH1 interaction is required for the DNA crosslink-induced intra S phase checkpoint. **EMBO J.** 26:3238-49.

37. **Sharma S**, Stumpo DJ, Balajee AS, Bock CB, Lansdorp PM, Brosh RM Jr., Blackshear PJ. (2007). RECQL, a member of the RecQ family of DNA helicases, suppresses chromosomal instability**. Mol. Cell. Biol.** 27:1784-94.

38. **Sharma S#.** (2007). Age-related nonhomologous end joining activity in rat neurons. **Brain Res. Bull**. 73(1-3):48-54.

39. Gupta R, **Sharma S**, Brosh RM Jr. (2006). The emerging roles of DNA helicases to stabilize the replication fork. **Current Genomics** 7:387-398.

40. Gupta R, **Sharma S**, Doherty, KM, Sommers JA, Cantor SB, Brosh RM Jr. (2006). Inhibition of BACH1 (FANCJ) helicase by backbone discontinuity is overcome by increased motor ATPase or length of loading strand. **Nucleic Acids Res.** 34:6673-83.

41. Muftuoglu M, **Sharma S**, Thorslund T, Stevnsner T, Soerensen MM, Brosh RM Jr, Bohr VA. (2006). Cockayne syndrome group B protein has novel strand annealing and exchange activities. **Nucleic Acids Res.** 34:295-304.

42. **Sharma S**, Doherty KM, Brosh RM Jr. (2006). Mechanisms of RecQ helicases in pathways of DNA metabolism and maintenance of genomic stability. **Biochem. J.** 398:319-37.

43. Doherty KM, **Sharma S**, Gupta R, Brosh RM Jr. (2006). Tetraplex binding molecules as anti-cancer agents. **Recent Patents on Anti-Cancer Drug Discovery** 1:185-200.

44. **Sharma S**, Sommers JA, Gary RK, Friedrich-Heineken E, Hubscher U, Brosh RM Jr.(2005). The interaction site of Flap Endonuclease-1 with WRN helicase suggests a coordination of WRN and PCNA. **Nucleic Acids Res.** 33:6769-81.

45. **Sharma S**, Sommers JA, Choudhary S, Faulkner JK, Cui S, Andreoli L, Muzzolini L, Vindigni A, Brosh RM Jr. (2005). Biochemical analysis of the DNA unwinding and strand annealing activities catalyzed by human RECQ1. **J Biol Chem.** 280:28072-84.

46. **Sharma S**, Doherty KM, Brosh RM Jr. (2005). DNA helicases as targets for anti-cancer drugs. **Curr. Med. Chem. Anticancer Agents** 5:183-99.

47. Doherty KM, **Sharma S**, Uzdilla LA, Wilson TM, Cui S, Vindigni A, Brosh RM Jr. (2005). RECQ1 helicase interacts with human mismatch repair factors that regulate genetic recombination. **J Biol Chem.** 280:28085-94.
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BOOK CHAPTERS

1. Debnath S, Lu X, **Sharma S#.** (2022). Transcriptional regulation by a RecQ helicase. **Methods in Enzymology.** NIHMSID: NIHMS1812400. (Invited article)
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