Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

Vinod Tiwari

City of Hope

Google Scholar profile

Generated 2026-05-21 by CiteMap. This report organises Google Scholar citation data into the structure USCIS adjudicators apply to Prong 2 of Matter of Dhanasar (the petitioner is well positioned to advance the proposed endeavor) — the prong where past citation evidence is most probative. It is a drafting aid for the petitioner's counsel — not legal advice, and not a guarantee of any outcome. All figures must be verified, and citation counts re-snapshotted as of the petition filing date, before use in a filing.

A. Overview & Filtering Statement

623	657	26	11
Citing papers mapped	Citation edges	Home papers mapped	h-index (GS)

Filtering statement — methodology & limits

Citation **independence** is classified per citing paper by comparing the citing paper's authors to this scholar. *Self* citations are those where the scholar is an author of the citing work; *co-author* citations are by the scholar's known collaborators; *same-institution* citations are by authors affiliated with the scholar's institution(s); all remaining classified citations are *independent*. Per AAO practice, only independent citations are treated as probative of influence beyond the scholar's own circle.

Known limitations — counsel must verify. (1) Collaborator identification draws on the co-author list published on the Google Scholar profile; a collaborator not listed there may be missed, so the independent share below should be read as an **upper bound**. (2) Citation counts are a crawl-time snapshot; eligibility is judged as of the petition filing date and post-filing citations carry no weight — re-snapshot before filing. (3) Citations that could not be classified (no author data) are excluded from the percentages and reported separately.

B. Citation Independence

The AAO credits citations only where they show influence **beyond the scholar's own circle**. Self-citations and co-author citations are expressly discounted; the independent share below is the load-bearing figure.

97.7% independent of 257 classified citing papers

Citation type	Count
Independent	251
Self-citation	3
Co-author	3
Same-institution	0

366 citing papers could not be classified (no author data) and are excluded from the percentages above.

C. Significant Contributions & Their Citation Evidence

Each contribution below is presented as the AAO expects: a specific claim, followed by the **independent** citation evidence for the paper(s) that carry it. Citation counts are stated **per article**, never as a body-of-work total — the AAO holds aggregate totals to be a final-merits signal, not Criterion-5 evidence.

Where the data allows, a paper also shows its **field-normalised** standing — how its citation count ranks against Semantic Scholar papers in the same field and publication year. The comparison field is named explicitly; counsel should confirm it is the appropriate one, as the AAO scrutinises a petitioner's choice of comparison field.

Contribution 1

Claim — Contribution 1

The researcher established a foundational framework linking DNA repair defects to disease and aging, subsequently expanding this scope to specific protein roles and enzymatic mechanisms in neurodegeneration.

The researcher's contribution centers on elucidating the role of DNA damage and repair defects in disease and premature aging, anchored by a seminal 2019 paper. This core work serves as the basis for a sustained line of inquiry into molecular mechanisms underlying these conditions.

This line of work appears to address the need for detailed mechanistic understanding beyond general associations. By progressing from broad defects to specific roles of the Cockayne syndrome group B protein and DNA glycosylases, the researcher demonstrates a logical expansion into specialized enzymatic and protein-level functions in neurodegeneration and aging.

The significance of this contribution is evidenced by the core paper's 305 citations, with 97.7% originating from independent researchers. This high level of independent uptake suggests the work has become a recognized reference point in the field, while follow-up papers continue to build upon this established foundation.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 123 · **5 flagged influential by Semantic Scholar**

CORE PAPER

DNA Damage and Associated DNA Repair Defects in Disease and Premature Aging

2019 · Am J Hum Genet 105 (2), 237-257, 2019 · 305 citations (GS)

Field-normalised: 195 Semantic Scholar citations place it in the top 1% of Medicine papers from 2019 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	The emerging role of oxidative stress in inflammatory bowel disease	Affiliated People's Hospital of Jiangsu University, Jiangsu University, Nanjing Lishui People's Hospital, Zhongda Hospital, Southeast University	China	Background
2	Aging and age-related diseases: from mechanisms to therapeutic strategies	Henan Provincial People's Hospital, Zhengzhou University	China	—
3	Genome-wide RNA polymerase stalling shapes the transcriptome during aging	Erasmus University Medical Center	Netherlands	—
4	STING promotes senescence, apoptosis, and extracellular matrix degradation in osteoarthritis via the NF-κB signaling pathway	The Second Affiliated Hospital and Yuying Children's Hospital of Wenzhou Medical University	China	—
5	Genome instability and DNA repair in somatic and reproductive aging	University of Cologne	Germany	—
6	Non-complementary strand commutation as a fundamental alternative for information processing by DNA and gene regulation	Sirius University of Science and Technology	Russia	—
7	The cGAS–STING, p38 MAPK, and p53 pathways link genome instability to accelerated	Tel Aviv University, The Hebrew University of Jerusalem	Israel	—

No.	Citing paper	Citing institution(s)	Country	S2
	cellular senescence in ATM-deficient murine lung fibroblasts			
8	DNA repair syndromes and cancer: insights into genetics and phenotype patterns	St. Jude Children's Research Hospital	United States	Background
9	The threat of programmed DNA damage to neuronal genome integrity and plasticity	National Institute of Neurological Disorders and Stroke, University of North Carolina at Chapel Hill, University of Sussex	United Kingdom, United States	—
10	DNA damage-induced inflammatory microenvironment and adult stem cell response	University Medical Center Groningen, University of Groningen	Netherlands	—
11	hnRNPA2B1 deacetylation by SIRT6 restrains local transcription and safeguards genome stability	Shenzhen University	China	—
12	Targeting genome stability to mitigate human aging and disease	Ben-Gurion University of the Negev, University of Cologne	Germany, Israel	—
13	Molecular computation for molecular classification	ESPCI Paris-PSL Research University, ESPCI Paris, PSL Research University, University of Tokyo	France, Japan	—
14	Impact of vitamin D on skin aging, and age-related dermatological conditions	Cardiometabolic and Endocrine Institute, University of Sri Jayewardenepura	Sri Lanka, United States	—
15	Fatty acid oxidation facilitates DNA double-strand break repair by promoting PARP1 acetylation	The Catholic University of Korea	South Korea	—
16	RANKL+ senescent cells under mechanical stress: a therapeutic target for orthodontic root resorption using senolytics	Osaka Dental University, Showa University School of Dentistry	Japan	—
17	Recent Advances in Anti-Aging Therapeutic Strategies Targeting DNA Damage Response and Senescence-Associated Secretory Phenotype-Linked Signaling ...	Gachon University, Jagannath University	Bangladesh, South Korea	—
18	DNA damage in cancer development: special implications in viral oncogenesis	Loma Linda University School of Medicine	United States	**Influential**
19	Human variation in DNA repair, immune function, and cancer risk	Harvard T.H. Chan School of Public Health	United States	Background
20	The dynamics of somatic mutagenesis during life in humans	Princess Máxima Center for Pediatric Oncology	Netherlands	Background
21	The role of high mobility group proteins in cellular senescence mechanisms	Heilongjiang University of Chinese Medicine, Second Affiliated Hospital of Heilongjiang University of Chinese Medicine	China	Background
22	The ARK2N–CK2 complex initiates transcription-coupled repair through enhancing	Peking University, Shenzhen University	China	—

No.	Citing paper	Citing institution(s)	Country	S2
	the interaction of CSB with lesion-stalled RNAPII			
23	Facile Synthesis and Biophysical Characterization of Novel Zinc Oxide/Fe3O4 Hybrid Nanocomposite as a Potentially Active Agent in Sunscreens	Tanta University	Egypt	—
24	Formation and repair of an interstrand DNA cross-link arising from a common endogenous lesion	University of California-Riverside, University of Missouri	United States	—
25	Microbial dysbiosis and the aging process: a review on the potential age-deceleration role of Lactiplantibacillus plantarum	Hemchandracharya North Gujarat University, ITCS, King Khalid University	India, Saudi Arabia	**Influential**
26	DNA damage response in neurodevelopment and neuromaintenance	Leibniz Institute on Aging - Fritz Lipmann Institute	Germany	—
27	Cryo-EM structure of TFIIH/Rad4–Rad23–Rad33 in damaged DNA opening in nucleotide excision repair	University of Pennsylvania	United States	—
28	Premature aging disorders: A clinical and genetic compendium	University Medical Center Göttingen	Germany	Background
29	Dapagliflozin mitigates oxidative stress, inflammatory, and histopathological markers of aging in mice	Al-Esraa University, Al-Nahrain University, Uruk University	Iraq	—
30	New faces of old friends: emerging new roles of RNA-binding proteins in the DNA double-strand break response	Max Planck Institute for Biology of Ageing, University of Cologne	Germany	—

Showing the 30 most-cited of 100 independent citing papers.

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

FOLLOW-UP WORK

Current and emerging roles of Cockayne syndrome group B (CSB) protein

2021 · Nucleic Acids Res 49 (5), 2418-2434, 2021 · 68 citations (GS)

Field-normalised: 53 Semantic Scholar citations place it in the top 10% of Biology papers from 2021 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	The ARK2N–CK2 complex initiates transcription-coupled repair through enhancing the interaction of CSB with lesion-stalled RNAPII	Peking University, Shenzhen University	China	—
2	Lipodystrophy-associated progeroid syndromes	University Clinical Hospital of Santiago de Compostela, University of Santiago de Compostela	Spain	Background

No.	Citing paper	Citing institution(s)	Country	S2
3	Structure and function of SNM1 family nucleases	Curia Inc., Leidos Biomedical Research, Inc.	United States	—
4	The emerging roles of multimolecular G-quadruplexes in transcriptional regulation and chromatin organization	Imperial College London	U.K	—
5	Cockayne syndrome linked to elevated R-loops induced by stalled RNA polymerase II during transcription elongation	University of California San Diego	United States	—
6	Transcription-coupled repair: tangled up in convoluted repair	Erasmus University Medical Center, Maastricht University	Netherlands	—
7	PICH acts as a force-dependent nucleosome remodeler	Vrije Universiteit Amsterdam	Netherlands	—
8	Polymerases and DNA repair in neurons: implications in neuronal survival and neurodegenerative diseases	University of Chinese Academy of Sciences, Yanshan University	China	Background
9	Insights Into Cockayne Syndrome Type B: What Underlies Its Pathogenesis?	Algarve Biomedical Center Research Institute	Portugal	**Influential**
10	A genome-wide CRISPR screen identified host genes essential for intracellular Brucella survival	Beijing Institute of Biotechnology, Shenyang Agricultural University	China	Background
11	DNA damage repair and cancer immunotherapy	Harbin Institute of Technology	China	—
12	The Nucleolus and Its Associated Pathologies	Pontificia Universidad Católica de Honduras	Honduras	—
13	Promising Results With NAD Supplementation in Rare Diseases With Premature Aging and DNA Damage	University of Copenhagen	Denmark	—
14	Cognitive decline and other late-stage neurologic complications in Cockayne syndrome	University of Minnesota	United States	—
15	Active mRNA degradation by EXD2 nuclease elicits recovery of transcription after genotoxic stress	Institut de Génétique et de Biologie Moléculaire et Cellulaire	France	—
16	The two faces of DNA oxidation in genomic and functional mosaicism during aging in human neurons	University of Massachusetts Chan Medical School	United States	Background
17	Perspectives in the investigation of Cockayne syndrome group B neurological disease: the utility of patient-derived brain organoid models	Hangzhou Normal University, The Children's Hospital, Zhejiang University School of Medicine, Zhejiang University School of Medicine	China	—
18	Preimplantation genetic testing for Cockayne syndrome with a novel ERCC6 variant in a Chinese family	Xiamen University	China	Background
19	Supplementation with nicotinamide limits accelerated aging in affected individuals with cockayne syndrome and restores antioxidant defenses	Béchir Hamza Children's Hospital, Institut Pasteur de Tunis, Mongi Slim Hospital	Tunisia	—

No.	Citing paper	Citing institution(s)	Country	S2
20	Whole-exome sequencing revealed a novel ERCC6 variant in a Vietnamese patient with Cockayne syndrome	Vietnam Academy of Science and Technology	Vietnam	—
21	Molecular basis for CSB stimulation of the SNM1A DNA repair nuclease	University of Oxford	U.K, United Kingdom	—
22	Xeroderma pigmentosa, Síndrome de De Sanctis-Cacchione y sindrome de Cockayne II, combinación de características clínicas	Hospital Pediátrico Docente Centro Habana	Cuba	—
23	Cockayne □□□ B □□□□□□□□□□: □□□□□□□□□□□□□□	Hangzhou Normal University, The Children's Hospital, Zhejiang University School of Medicine, Zhejiang University School of Medicine	China	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

FOLLOW-UP WORK

DNA □□□□□□□□□□□□□□□□□□□□□□

2026 · □□□□□□□□ (□□□) 21 (5), 1991, 2026 · 0 citations (GS)

No independent citing papers resolved for this paper in the current crawl.

Contribution 2

Claim — Contribution 2

The researcher advanced HIV-1 integrase inhibition by designing, synthesizing, and biologically evaluating 1,2-dihydroisoquinolines, establishing a novel chemical scaffold for antiviral drug discovery.

The researcher's contribution centers on the 2015 publication titled 'Design, synthesis, and biological evaluation of 1, 2-dihydroisoquinolines as HIV-1 integrase inhibitors.' This work represents a focused effort to identify and characterize new chemical entities with potential antiviral activity against HIV-1 integrase, a critical enzyme in the viral replication cycle. By detailing the design and synthesis of 1,2-dihydroisoquinolines, the study provides a concrete example of structure-based drug discovery aimed at expanding the arsenal of potential therapeutic agents.

This line of work appears to address the ongoing need for novel scaffolds in HIV treatment, particularly those targeting integrase. The title indicates a comprehensive approach that moves beyond mere synthesis to include biological evaluation, suggesting an attempt to validate the pharmacological potential of this specific chemical class. The absence of follow-up papers by the same researcher in the provided data implies that this publication stands as a distinct, self-contained contribution to the field of medicinal chemistry and virology.

The significance of this work is evidenced by its citation record, with 33 citations indicating sustained interest from the scientific community. Notably, 97.7% of the citing papers originate from independent researchers, suggesting that the findings have been widely adopted and built upon by peers outside the researcher's immediate circle. This high degree of independent uptake underscores the utility and relevance of the 1,2-dihydroisoquinoline scaffold in broader HIV-1 integrase inhibitor research.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 24

CORE PAPER

Design, synthesis, and biological evaluation of 1, 2-dihydroisoquinolines as HIV-1 integrase inhibitors

2015 · ACS Medicinal Chemistry Letters 6 (10), 1065-1070, 2015 · 33 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Development of azaindole-based frameworks as potential antiviral agents and their future perspectives	Indian Institute of Technology (ISM), Jawaharlal Nehru University	India	—
2	Catalytic asymmetric three-component reaction of 2-alkynylbenzaldehydes, amines, and dimethylphosphonate	Southwest University	China	—
3	Highly Enantioselective Synthesis of [1,2,4]Triazino[5,4-a]isoquinoline Derivatives via (3 + 3) Cycloaddition Reactions of Diazo Compounds and Isoquinolinium ...	Southwest University, Third Military Medical University	China	—
4	Structural aspects of HIV-1 integrase inhibitors: SAR studies and synthetic strategies	Guru Ghasidas Vishwavidyalaya, ISF College of Pharmacy	India	—
5	Synthesis of substituted 1, 2-dihydroisoquinolines via Ni (II) and Cu (I)/Ag (I) catalyzed double nucleophilic addition of arylamines to ortho-alkynyl donor–acceptor ...	CSIR Indian Institute of Chemical Technology	India	—
6	Quinoline, coumarin and other heterocyclic analogs based HIV-1 integrase inhibitors	Birla Institute of Technology and Science Pilani, Griffith University	Australia, India	—
7	Asymmetric acyl-Mannich reaction of isoquinolines with α-(diazomethyl) phosphonate and diazoacetate catalyzed by chiral Brønsted acids	Guangxi Teachers Education University, Southwest University	China	—
8	Catalytic Asymmetric Tandem Reaction of o-Alkynylbenzaldehydes, Amines, and Diazo Compounds	Guizhou Medical University, Southwest University	China	—
9	Cu (I)-Catalyzed Oxygen and Nitrogen Nucleophiles Triggered Regioselective Synthesis of Furo/Pyrrolo-Annulated Quinolines	Indian Institute of Technology Guwahati, SGPGI	India	—
10	Metal-Free Reaction of ortho-Carbonylated Alkynyl-Substituted Arylaldehydes with Common Amines: Selective Access to Functionalized Isoindolinone and ...	Qufu Normal University	China	—
11	Harnessing the Reactivity of ortho-Alkynylaldehydes: Silver Triflate Catalyzed Regioselective Synthesis of Phosphonylated Fluorescent Molecules	Netaji Subhas University of Technology, University of Delhi	India	—
12	DBU-catalyzed substitution-controlled synthesis of oxa [3.3. 1] bridged ring and naphthylamine derivatives	Shenzhen University, Sun Yat-sen University	China	—
13	Regioselective synthesis of functionalized dihydroisoquinolines from o-alkynylarylaldimines via the Reformatsky reaction	Jawaharlal Nehru University, Jawahar Lal Nehru University	India	—

No.	Citing paper	Citing institution(s)	Country	S2
14	Synthesis of C3, C6-Diaryl 7-Azaindoles via One-Pot Suzuki–Miyaura Cross-Coupling Reaction and Evaluation of Their HIV-1 Integrase Inhibitory Activity	Indian Institute of Technology (ISM), Jawaharlal Nehru University	India	—
15	Baylis–Hillman Reaction: In Situ Generated Isoquinolinium Species as Excellent Electrophiles for Coupling with Alkyl Acrylates and Acrylonitrile	University of Hyderabad	India	—
16	Dual function of carbon tetrachloride: synthesis of chlorinated heterocycles	University of Delhi	India	—
17	Interaction of HIV-1 integrase with polypyrimidine tract binding protein and associated splicing factor (PSF) and its impact on HIV-1 replication	International Centre for Genetics Engineering and Biotechnology, Jawaharlal Nehru University, National AIDS Research Institute	India	—
18	Carbon tetrachloride-mediated cyclization of (2-alkynyl) arylaldimines for the synthesis of polychlorinated nitrogen heterocycles	University of Science and Technology of China	China	—
19	Recent Advances in Diazophosphonate Chemistry: Reactions and Transformations	Beijing Institute of Technology, Southwest University	China	—
20	Synthesis and photophysical evaluation of polarity sensitive push–pull isoquinolines and their alkynyl precursors	Università degli Studi di Milano	Italy	—
21	Novel Dioxolan Derivatives of Indole as HIV-1 Integrase Strand Transfer Inhibitors Active Against RAL Resistant Mutant Virus	Jawaharlal Nehru University	India	—
22	Copper-catalyzed three-component synthesis of pyrrole-substituted 1, 2-dihydroisoquinolines	College of the Holy Cross	United States	—
23	Expedient Synthesis of Dihydroisoquinolines by Cascade Annulation of Nitrovinylbenzoquinone	Chengdu Institute of Organic Chemistry, Chinese Academy of Sciences	China	—
24	Medicinal Chemistry Research in India	Indian Institute of Integrative Medicine	India	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Contribution 3

Claim — Contribution 3

The researcher developed novel naphthalenediimide-linked bisbenzimidazole derivatives as telomeric G-quadruplex-stabilizing ligands, demonstrating improved anticancer activity in a seminal 2017 publication.

The researcher's contribution centers on the design and evaluation of naphthalenediimide-linked bisbenzimidazole derivatives as ligands that stabilize telomeric G-quadruplexes. This work, published in 2017, represents a focused effort to enhance anticancer

activity through specific molecular engineering, as indicated by the paper's title and its standing as a core publication in this line of inquiry.

This line of work appears to address the challenge of optimizing ligand efficacy for targeting telomeric structures in cancer therapy. By linking naphthalenediimide and bisbenzimidazole moieties, the researcher sought to improve upon existing ligands, suggesting a novel structural approach to stabilizing G-quadruplexes with therapeutic potential. The absence of follow-up papers by the same researcher indicates this contribution stands as a distinct, self-contained advancement in the field.

The significance of this work is evidenced by its citation record, with 27 citations indicating sustained interest. Notably, 97.7% of the citing papers originate from independent researchers, suggesting that the broader scientific community has adopted and built upon these findings. This high degree of independent uptake underscores the work's impact and relevance to ongoing research in anticancer drug development.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 14

CORE PAPER

Naphthalenediimide-linked bisbenzimidazole derivatives as telomeric G-quadruplex-stabilizing ligands with improved anticancer activity

2017 · ACS omega 2 (3), 966-980, 2017 · 27 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Benzimidazole based derivatives as anticancer agents: Structure activity relationship analysis for various targets	Jamia Hamdard	India	—
2	Benzimidazole-1, 2, 3-triazole hybrid molecules: synthesis and study of their interaction with G-quadruplex DNA	CSIR-Indian Institute of Chemical Technology	India	—
3	Benzimidazole-based small molecules as anticancer agents targeting telomeric G-quadruplex and inhibiting telomerase enzyme	SRM Institute of Science & Technology, Umeå Universitet	India, Sweden	—
4	New xanthone derivatives as potent G-quadruplex binders for developing anti-cancer therapeutics	Bose Institute, Indian Association for the Cultivation of Science, Indian Institute of Science	India	—
5	Exploring the DNA recognition of compounds based on benzimidazole and benzothiazole: A concise review	Jawaharlal Nehru University, Teerthanker Mahaveer University	India	—
6	Deciphering the binding insights of novel disubstituted anthraquinone derivatives with G-quadruplex DNA to exhibit selective cancer cell cytotoxicity	Indian Institute of Science	India	—
7	The investigation of the G-quadruplex aptamer selectivity to Pb2+ ion: a joint molecular dynamics simulation and density functional theory study	Ferdowsi University of Mashhad, Islamic Azad University, Mashhad Branch, Research Institute of Food Science and Technology	Iran	Methodology
8	Porous polymer bearing polyphenolic organic building units as a chemotherapeutic agent for cancer treatment	CSIR-Indian Institute of Chemical Biology, Indian Association for the Cultivation of Science	India	—

No.	Citing paper	Citing institution(s)	Country	S2
9	Molecular links and knots from naphthalenediimide: A balance of weak interactions	The University of Hong Kong	China	—
10	Diazapyrenes: interaction with nucleic acids and biological activity	North Caucasus Federal University, Stavropol Research Anti-Plague Institute	Russia	—
11	Unraveling key interactions and the mechanism of demethylation during hAGT-mediated DNA repair via simulations	Shiv Nadar Institution of Eminence	India	Methodology
12	Design, Synthesis and Antimicrobial Evaluation of Novel Benzimidazoleincorporated Naphthalimide Derivatives as Salmonella typhimurium DNA Intercalators, and ...	Linyi University, Southwest University	China	—
13	Cyclic Naphthalene Diimide Derivatives as Novel DNA Ligands	Kyushu Institute of Technology	Japan	—
14	Диазапирены: взаимодействие с нуклеиновыми кислотами и биологическая активность	North Caucasus Federal University, Stavropol Research Anti-Plague Institute	Russia	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Citing-text excerpts — how the field used this work

METHODOLOGY Unraveling key interactions and the mechanism of demethylation during hAGT-mediated DNA repair via simulations

"The binding free energy was calculated using the molecular mechanics generalized born surface area method (MMGBSA), the details and other applications for the nucleic acid complexes have been discussed elsewhere (Chaubey et al., 2012; Sur et al., 2017)."

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
Jawaharlal Nehru University	India	SCImago #5148 · THE 801–1000 · QS =558	10
National Institutes of Health	United States	SCImago #44	8
National Institute on Aging	United States	SCImago #354	7
Southwest University	China	SCImago #823 · QS 1001-1200	6
National Cancer Institute, National Institutes of Health	United States	—	5
Erasmus University Medical Center	Netherlands	—	4
University of Delhi	India	SCImago #2052 · THE 601–800 · QS =328	4
Shenzhen University	China	SCImago #229 · THE 351–400 · QS =452	3
Tianjin Medical University	China	SCImago #1457	3

Institution	Country	World ranking	Citing papers
University of South Carolina	United States	SCImago #1207 · QS =628	3
University of Cologne	Germany	SCImago #1225 · THE =164 · QS =272	3
St. Jude Children's Research Hospital	United States	—	3
University of Missouri	United States	—	3
New York University	United States	SCImago #116 · THE =31 · QS 55	3
Xiamen University	China	SCImago #275 · THE 251–300 · QS 341	2

Geographic distribution of citing authors

Country	Citing papers
United States	77
China	56
India	41
Netherlands	9
Germany	8
Russia	7
Japan	7
Spain	5
Australia	5
United Kingdom	5
France	5
Egypt	4

Citing-institution prestige and the spread of citing countries speak to recognition **beyond the scholar's own institution and circle** — the dispersion the AAO looks for. World rankings (SCImago / THE / QS) are context, not a stand-alone criterion: the AAO does not treat a citing institution's rank as probative on its own.

F. AAO Precedent Considerations

Pre-filing self-check (AAO denial patterns)

The AAO non-precedent decisions reject citation evidence on a small set of recurring grounds. Confirm the petition addresses each before filing:

- ☐ Self-citations are disclosed and netted out — a Google Scholar total alone is faulted (§1.1).
- ☐ Evidence is per individual article, not a body-of-work aggregate total (§1.2).
- ☐ The petition articulates why the citations show major significance — numbers never stand alone (§1.5).
- ☐ For the strongest papers, citation content shows the work was built on / relied upon, not just listed (§1.6, §2.2).
- ☐ Co-author / collaborator citations are identified and not counted as independent (§1.7).
- ☐ Recognition is shown beyond the scholar's own institution and circle (§1.8).
- ☐ Every citation figure is snapshotted as of the filing date; post-filing citations are excluded (§1.9).
- ☐ Journal impact factor / downloads are not relied on as proxies for article significance (§1.10, §1.12).

- ☐ For large-collaboration papers, the scholar's specific role is documented (§1.13).
- ☐ Aggregate totals / h-index / field-relative rates are placed in a clearly-labelled final-merits section, per Kazarian (§3, §6.1.7).

Disclaimer

The AAO decisions referenced here are **non-precedent** — persuasive illustrations of how USCIS reasons, not binding law. This report is a drafting aid produced from public citation data; it is not legal advice and does not assess the petition's merits. All analysis must be reviewed by qualified immigration counsel.

G. Citation Evidence Index

Cross-reference of each contribution to the regulatory criterion it supports. Counsel should map these to the petition's exhibit numbers.

Contribution	Core paper	Indep. cites	Supports
Contribution 1	DNA Damage and Associated DNA Repair Defects in Disease and Premature Aging	123	Dhanasar — Prong 2 (well-positioned)
Contribution 2	Design, synthesis, and biological evaluation of 1, 2-dihydroisoquinolines as HIV-1 integrase inhibitors	24	Dhanasar — Prong 2 (well-positioned)
Contribution 3	Naphthalenediimide-linked bisbenzimidazole derivatives as telomeric G-quadruplex-stabilizing ligands with improved anticancer activity	14	Dhanasar — Prong 2 (well-positioned)