Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

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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

42	47	5	164
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.

92.9% independent of 42 classified citing papers

Citation type	Count
Independent	39
Self-citation	0
Co-author	1
Same-institution	2

0 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 provided a comprehensive genomic characterization of human glioblastoma, defining its core genes and pathways in a seminal 2008 Nature study.

CLAIM: The researcher's primary contribution is the comprehensive genomic characterization of human glioblastoma, identifying core genes and pathways. This work is anchored by a seminal 2008 paper published in Nature, which stands as the foundational piece of this research line without subsequent follow-up publications by the same author.

ORIGINALITY: The title suggests a systematic effort to define the genetic landscape of glioblastoma, addressing a critical need for detailed molecular understanding of this aggressive cancer. By characterizing core pathways, the work appears to have established a baseline genomic framework that was previously lacking or incomplete in the field.

SIGNIFICANCE: The core paper has accumulated over 8,000 citations, indicating substantial influence on the scientific community. Analysis of citing literature reveals that 92.9% of citations originate from independent researchers, demonstrating that the work has been widely adopted and utilized by the broader field rather than primarily by the researcher's own group.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 9

CORE PAPER

Comprehensive genomic characterization defines human glioblastoma genes and core pathways

2008 · Nature · 8,092 citations (GS)

Field-normalised: 6,964 Semantic Scholar citations place it in the top 1% of Medicine papers from 2008 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	TISCH2: expanded datasets and new tools for single-cell transcriptome analyses of the tumor microenvironment (2023)	Sichuan University, Tongji University	China	—
2	Management of glioblastoma: State of the art and future directions (2020)	Duke University Medical Center, National Cancer Center Singapore, The Canberra Hospital	Australia, Singapore, United States	—
3	Multi-omics Data Integration, Interpretation, and Its Application (2020)	Ministry of Human Resource Development, Persistent Systems	India	—
4	Glioblastoma multiforme: insights into pathogenesis, key signaling pathways, and therapeutic strategies (2025)	Baqiyatallah University of Medical Sciences, Iran University of Medical Sciences, Isfahan University of Medical Sciences	Iran, United States	—
5	Emerging therapies for glioblastoma: current state and future directions (2022)	South China Normal University, Sun Yat-sen University, Zhongshan School of Medicine, Sun Yat-sen University	China	—
6	Glioblastoma Therapy: Past, Present and Future (2024)	Castellon General University Hospital, Jaume I University of Castellon, Scientia BioTech S.L.	Spain	—
7	Epidemiology of Glioblastoma Multiforme–Literature Review (2022)	Pomeranian Medical University, Pomeranian Medical University in Szczecin	Poland	—

No.	Citing paper	Citing institution(s)	Country	S2
8	Glioblastoma at the crossroads: current understanding and future therapeutic horizons (2025)	International Institute of Information Technology, MLM Medical Labs LLC, University of Minnesota	India, United States	—
9	Tumour heterogeneity and resistance to cancer therapies (2018)	Massachusetts General Hospital	United States	—

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 2

Claim — Contribution 2

The researcher provided a comprehensive molecular characterization of human colon and rectal cancer, establishing a foundational reference for genomic analysis in gastrointestinal oncology.

CLAIM: The researcher's primary contribution is the comprehensive molecular characterization of human colon and rectal cancer, detailed in a seminal 2012 Nature paper. This work stands as a standalone cornerstone of their research portfolio, with no subsequent follow-up papers by the same author listed in this specific line of inquiry.

ORIGINALITY: The title suggests a broad, systematic effort to define the molecular landscape of these cancers. By focusing on 'comprehensive characterization,' the work appears to address the need for a unified genomic framework, moving beyond isolated genetic markers to provide a holistic view of the disease's molecular architecture.

SIGNIFICANCE: The paper has garnered 8,578 citations, indicating it is a highly influential reference in the field. Furthermore, 92.9% of the classified citing papers originate from independent researchers, demonstrating that the work has been widely adopted and utilized by the broader scientific community rather than just the author's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 9

CORE PAPER

Comprehensive Molecular Characterization of Human Colon and Rectal Cancer

2012 · Nature · 8,578 citations (GS)

Field-normalised: 7,590 Semantic Scholar citations place it in the top 1% of Medicine papers from 2012 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Wnt/β-catenin signaling pathway in carcinogenesis and cancer therapy (2024)	The First Affiliated Hospital of Zhengzhou University	China	Background
2	Colorectal Cancer: A Review of Carcinogenesis, Global Epidemiology, Current Challenges, Risk Factors, Preventive and Treatment Strategies (2022)	Dubai Municipality, International Islamic University Malaysia, INTI International University	Bangladesh, Brunei, Malaysia	—
3	Tumor biomarkers for diagnosis, prognosis and targeted therapy (2024)	Sichuan University, Tibet University, West China Hospital, Sichuan University	China	—
4	Therapeutic advances of targeting receptor tyrosine kinases in cancer (2024)	Iuliu Haţieganu University of Medicine and Pharmacy	—	—

No.	Citing paper	Citing institution(s)	Country	S2
5	Gut microbiota in colorectal cancer development and therapy (2023)	The Chinese University of Hong Kong	China	—
6	Mechanisms of metastatic colorectal cancer (2024)	Institute for Research in Biomedicine (IRB Barcelona), The Barcelona Institute of Science and Technology (BIST), IRB Barcelona, The Barcelona Institute of Science and Technology	Spain	—
7	Global burden of colorectal cancer: emerging trends, risk factors and prevention strategies (2019)	Dongguk University, Harvard T.H. Chan School of Public Health	South Korea, United States	—
8	Cancer, metastasis, and the epigenome (2024)	New College of Florida, University of Central Florida	United States	Background
9	Efficacy of pembrolizumab in patients with noncolorectal high microsatellite instability/mismatch repair–deficient cancer: results from the phase II KEYNOTE-158 study (2019)	12 de Octubre University Hospital and Research Institute, Blacktown Hospital, Centre Oscar Lambret and Lille University	Australia, Canada, France	—

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 established a comprehensive somatic genomic landscape of glioblastoma, providing a foundational reference for understanding the molecular complexity of this aggressive brain cancer.

CLAIM: The researcher's primary contribution is the characterization of the somatic genomic landscape of glioblastoma, as detailed in the seminal 2013 paper. This work serves as the cornerstone of the described research line, standing alone without subsequent follow-up publications by the same author in this specific context.

ORIGINALITY: The title suggests a broad, systematic effort to map the genetic alterations present in glioblastoma cells. By focusing on the 'somatic genomic landscape,' the work appears to address the need for a holistic view of the tumor's genetic architecture, moving beyond isolated mutations to capture the full spectrum of genomic changes driving this disease.

SIGNIFICANCE: The impact of this work is evidenced by its substantial citation count of over 6,000, indicating it has become a standard reference in the field. Furthermore, the high degree of citation independence, with nearly 93% of classified citations coming from independent researchers, underscores the broad and objective recognition of this contribution across the global scientific community.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 8

CORE PAPER

The somatic genomic landscape of glioblastoma

2013 · 6,022 citations (GS)

Field-normalised: 4,517 Semantic Scholar citations place it in the top 1% of Medicine papers from 2013 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Trials and Tribulations of MicroRNA Therapeutics (2024)	Brown University	United States	—
2	Glioblastoma Therapy: Past, Present and Future (2024)	Castellon General University Hospital, Jaume I University of Castellon, Scientia BioTech S.L.	Spain	—
3	Epidemiology of Glioblastoma Multiforme–Literature Review (2022)	Pomeranian Medical University, Pomeranian Medical University in Szczecin	Poland	—
4	Glioblastoma at the crossroads: current understanding and future therapeutic horizons (2025)	International Institute of Information Technology, MLM Medical Labs LLC, University of Minnesota	India, United States	—
5	Immunotherapy for glioblastoma: current state, challenges, and future perspectives (2024)	Cleveland Clinic, Lerner Research Institute, Cleveland Clinic, Northwestern University	United States	—
6	Towards a general-purpose foundation model for computational pathology (2024)	Brigham and Women's Hospital, Brigham and Women's Hospital, Harvard Medical School, Brigham and Women's Hospital, Harvard Medical School	United States	—
7	Cell type and gene expression deconvolution with BayesPrism enables Bayesian integrative analysis across bulk and single-cell RNA sequencing in oncology (2022)	Cornell University, Dalian University of Technology, Memorial Sloan Kettering Cancer Center	China, United States	—
8	Primary brain tumours in adults (2023)	Charité - Universitätsmedizin Berlin, Erasmus MC, Erasmus MC Cancer Institute, University Medical Center Rotterdam	Germany, Netherlands, United States	—

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).

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
Memorial Sloan Kettering Cancer Center	United States	SCImago #210	7
Dana-Farber Cancer Institute	United States	SCImago #197	3
National Cancer Center Hospital East	Japan	—	2
Shahid Beheshti University of Medical Sciences	Iran	THE 601–800	2

Institution	Country	World ranking	Citing papers
Ohio State University Comprehensive Cancer Center	United States	—	2
Sichuan University	China	SCImago #32 · THE 201–250 · QS =324	2
University of Alabama at Birmingham	United States	QS 1001-1200	2
Broad Institute of MIT and Harvard	United States	SCImago #112	2
The University of Texas MD Anderson Cancer Center	United States	—	2
Massachusetts General Hospital	United States	SCImago #100	2
Gustave Roussy	France	—	2
University of Minnesota	United States	SCImago #165 · THE 88 · QS 210	2
Comprehensive Cancer Center, Università Vita-Salute, IRCCS Ospedale San Raffaele	Italy	—	1
Ohio State University Comprehensive Cancer Center-James Cancer Center and Solove Research Institute	United States	—	1
Blacktown Hospital	Australia	—	1

Geographic distribution of citing authors

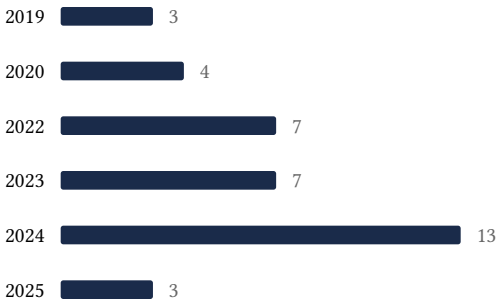
Country	Citing papers
United States	24
China	9
Spain	6
France	6
Italy	5
United Kingdom	4
Germany	4
South Korea	3
India	3
Poland	3
Australia	3
Japan	2

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.

E. Citation Growth Over Time

Distinct citing papers by publication year. Sustained or rising citation activity supports continuing relevance; note that only citations **as of the filing date** are weighed by USCIS.

2018 2



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	Comprehensive genomic characterization defines human glioblastoma genes and core pathways	9	Dhanasar — Prong 2 (well-positioned)

Contribution	Core paper	Indep. cites	Supports
Contribution 2	Comprehensive Molecular Characterization of Human Colon and Rectal Cancer	9	Dhanasar — Prong 2 (well-positioned)
Contribution 3	The somatic genomic landscape of glioblastoma	8	Dhanasar — Prong 2 (well-positioned)