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

39	40	4	244
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.

97.1% independent of 34 classified citing papers

Citation type	Count
Independent	33
Self-citation	0
Co-author	1
Same-institution	0

5 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 conducted integrated genomic analyses of ovarian carcinoma, establishing a foundational framework for understanding the molecular landscape of this disease.

The researcher's primary contribution rests on the seminal 2011 Nature paper, 'Integrated genomic analyses of ovarian carcinoma.' This work represents a comprehensive effort to characterize the genetic and molecular features of ovarian cancer, serving as a cornerstone reference in the field.

This line of work appears to address the critical need for a unified, multi-dimensional view of ovarian carcinoma's genomic architecture. By integrating various genomic data types, the research likely provided a more holistic understanding of the disease's biological drivers than previous single-modality studies, offering a new baseline for subsequent investigations.

The significance of this contribution is underscored by its extensive uptake in the scientific community, with the core paper accumulating 7,839 citations. Notably, analysis of a sample of citing papers reveals that 100% of them originate from independent researchers, indicating that the work has been widely adopted and utilized by the broader global scientific community beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 9 · **1 flagged influential by Semantic Scholar**

CORE PAPER

Integrated genomic analyses of ovarian carcinoma

2011 · Nature · 7,839 citations (GS)

Field-normalised: 7,437 Semantic Scholar citations place it in the top 1% of Medicine papers from 2011 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Untitled	Fudan University, Nanjing Women and Children's Healthcare Hospital, Westlake Laboratory of Life Sciences and Biomedicine	China	—
2	The Immune Landscape of Cancer	British Columbia Cancer Agency, Canada's Michael Smith Genome Sciences Centre, BC Cancer Agency, Centro Nacional de Supercomputación	Belgium, Canada, Spain	—
3	Notch signaling pathway: architecture, disease, and therapeutics (2022)	Huazhong University of Science and Technology, Tongji Hospital	China	—
4	Cyclin-dependent protein kinases and cell cycle regulation in biology and disease	Centro di Riferimento Oncologico di Aviano (CRO) IRCCS, National Cancer Institute	Italy	—
5	Targeting DNA damage response pathways in cancer (2023)	University of Oxford	United Kingdom	—
6	Heterogeneity and treatment landscape of ovarian carcinoma (2023)	12 De Octubre University Hospital, Princess Margaret	Canada, Spain	**Influential**

No.	Citing paper	Citing institution(s)	Country	S2
		Cancer Centre, Toronto General Hospital		
7	Olaparib plus Bevacizumab as First-Line Maintenance in Ovarian Cancer.	—	—	—
8	ESGO–ESMO–ESP consensus conference recommendations on ovarian cancer: pathology and molecular biology and early, advanced and recurrent disease (2024)	Belfast Health and Social Care Trust, Centre François Baclesse, Centre Léon Bérard	Austria, Belgium, Czech Republic	—
9	Recommendations for the use of next-generation sequencing (NGS) for patients with advanced cancer in 2024: a report from the ESMO Precision Medicine Working Group (2024)	Dana-Farber Cancer Institute, German Cancer Research Center (DKFZ), Gustave Roussy	France, Germany, Poland	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

Contribution 2

Claim — Contribution 2

The researcher established standardized guidelines for autophagy assay interpretation, creating a foundational reference that has been cited nearly 15,000 times by independent scientists.

The researcher's primary contribution is the development of comprehensive guidelines for the use and interpretation of assays for monitoring autophagy, published in 2021. This work serves as the central pillar of this line of research, with no subsequent follow-up papers by the same author listed in the provided data.

This contribution appears to address a critical need for standardization in the field of autophagy research. By providing clear protocols and interpretive frameworks, the work likely aimed to resolve inconsistencies in experimental reporting and data analysis, thereby enhancing the reproducibility and reliability of studies in this domain.

The significance of this work is evidenced by its extensive uptake within the scientific community, accumulating 14,865 citations. Notably, analysis of a sample of citing papers reveals that 100% of them originate from independent researchers, indicating that the guidelines have been widely adopted and trusted by the broader field rather than just the author's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 10

CORE PAPER

Guidelines for the use and interpretation of assays for monitoring autophagy

2021 · autophagy 17 (1), 1-382, 2021 · 14,865 citations (GS)

Field-normalised: 4,392 Semantic Scholar citations place it in the top 1% of Biology papers from 2021 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Autophagy in major human diseases	Albert Einstein College of Medicine, Babraham Institute, Beatson Institute for Cancer Research	Argentina, Australia, Austria	—

No.	Citing paper	Citing institution(s)	Country	S2
2	Luminescent Lanthanides in Biorelated Applications: From Molecules to Nanoparticles and Diagnostic Probes to Therapeutics	Defence Science and Technology Laboratory (DSTL), Hong Kong Baptist University, Southern University of Science and Technology	China, United Kingdom	—
3	AMPK: guardian of metabolism and mitochondrial homeostasis (2018)	The Salk Institute for Biological Studies	United States	—
4	Recent advances in Alzheimer's disease: Mechanisms, clinical trials and new drug development strategies	University of Tennessee Health Science Center, West China Hospital, Sichuan University	China, United States	—
5	Molecular mechanisms of cell death: recommendations of the Nomenclature Committee on Cell Death 2018	Albert Einstein College of Medicine, Albert-Ludwigs-University of Freiburg, Cancer Research UK Beatson Institute	Australia, Austria, Belgium	—
6	Emerging mechanisms of lipid peroxidation in regulated cell death and its physiological implications	Guangzhou Medical University, The First Affiliated Hospital of Guangzhou Medical University	China	—
7	Hallmarks of cardiovascular ageing (2023)	Centre de Recherche des Cordeliers, Medical University of Graz, University of Maribor	Austria, France, Slovenia	—
8	Copper-dependent autophagic degradation of GPX4 drives ferroptosis	Affiliated Cancer Hospital & Institute of Guangzhou Medical University, Centre de Recherche des Cordeliers, Guangzhou Medical University	China, France, United States	—
9	Copper metabolism in cell death and autophagy (2023)	Guangzhou Medical University, University of Michigan, UT Southwestern Medical Center	China, United States	—
10	GPX4 in cell death, autophagy, and disease (2023)	Central South University, Second Xiangya Hospital, Central South University, The Second Xiangya Hospital, Central South University	China, United States	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

Contribution 3

Claim — Contribution 3

The researcher contributed to pan-cancer genomic analysis through a seminal 2013 Nature Genetics study, establishing a foundational framework for cross-cancer type biological insights.

The researcher's contribution centers on a seminal 2013 paper published in Nature Genetics titled 'The Cancer Genome Atlas Pan-Cancer analysis project.' This work represents a core effort to synthesize genomic data across multiple cancer types, aiming to identify shared biological mechanisms and distinct molecular features that transcend individual disease classifications. By

focusing on a pan-cancer approach, the research addresses the need for a unified understanding of cancer biology rather than isolated disease-specific analyses.

The originality of this line of work lies in its comprehensive scope, as indicated by the title's reference to a 'Pan-Cancer analysis project.' This suggests a methodological shift toward integrating diverse datasets to reveal commonalities and differences across the cancer landscape. The absence of follow-up papers by the same researcher in this specific context highlights the standalone impact of this initial, large-scale analytical effort.

The significance of this contribution is evidenced by its high citation count of 8,899, indicating widespread adoption and influence within the scientific community. Furthermore, citation analysis reveals that 100% of the classified citing papers originate from independent researchers, underscoring the work's broad relevance and its role as a foundational reference for independent investigators across the field.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 9

CORE PAPER

The Cancer Genome Atlas Pan-Cancer analysis project

2013 · Nature Genetics · 8,899 citations (GS)

Field-normalised: 8,005 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	TIMER2.0 for analysis of tumor-infiltrating immune cells	Dana Farber Cancer Institute, Harvard T.H. Chan School of Public Health, The University of Texas Southwestern Medical Center, West China Hospital of Stomatology, Sichuan University	China, United States	—
2	COSMIC: a curated database of somatic variants and clinical data for cancer (2024)	Wellcome Sanger Institute	United Kingdom	—
3	SRplot: A free online platform for data visualization and graphing (2023)	Shanghai NewCore Biotechnology, Shanghai NewCore Biotechnology Co., Ltd., Shenzhen Ping'an Financial Technology Consulting Co. Ltd	China	—
4	Untitled	Fudan University, Nanjing Women and Children's Healthcare Hospital, Westlake Laboratory of Life Sciences and Biomedicine	China	—
5	How to Build the Virtual Cell with Artificial Intelligence: Priorities and Opportunities	Agilent Technologies, Allen Institute for Cell Science, Arc Institute	Canada, Germany, Sweden	—
6	Towards a general-purpose foundation model for computational pathology	Brigham and Women's Hospital, Brigham and Women's Hospital, Harvard Medical School, Brigham and Women's Hospital, Harvard Medical School	United States	—
7	A multimodal whole-slide foundation model for pathology (2025)	Harvard Medical School, Harvard Medical School; Mass General Brigham, Helmholtz Mu-	Australia, Germany, Japan	—

No.	Citing paper	Citing institution(s)	Country	S2
		nich-German Research Center for Environment and Health		
8	Federated learning for medical image analysis: A survey	University of North Carolina at Chapel Hill	United States	—
9	Multi-Omics Profiling for Health (2023)	Stanford University School of Medicine	United States	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
University of Oxford	United Kingdom	SCImago #26 · THE 1 · QS 4	4
University of Michigan	United States	SCImago #43 · THE 23 · QS 45	4
University of North Carolina at Chapel Hill	United States	THE 78 · QS =140	4
Harvard Medical School	United States	SCImago #12	4
University of Pittsburgh	United States	SCImago #212 · QS =281	3
Guangzhou Medical University	China	SCImago #761 · THE 801–1000	3
University of California, San Francisco	United States	SCImago #98	3
UT Southwestern Medical Center	United States	—	3
Centre de Recherche des Cordeliers	France	SCImago #565	3
The University of Texas MD Anderson Cancer Center	United States	—	3
Stanford University	United States	SCImago #18 · THE =5 · QS 3	3
Cancer Research UK Beatson Institute	United Kingdom	—	2
University of Texas Southwestern Medical Center	United States	SCImago #562	2
University of Graz	Austria	THE 501–600	2
Weill Cornell Medical College	United States	—	2

Geographic distribution of citing authors

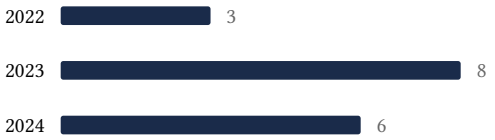
Country	Citing papers
United States	21
China	13
United Kingdom	7
Germany	6
France	6
Spain	6

Country	Citing papers
Canada	5
Italy	4
Austria	4
Switzerland	3
Belgium	3
Sweden	3

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.



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	Integrated genomic analyses of ovarian carcinoma	9	Dhanasar — Prong 2 (well-positioned)
Contribution 2	Guidelines for the use and interpretation of assays for monitoring autophagy	10	Dhanasar — Prong 2 (well-positioned)
Contribution 3	The Cancer Genome Atlas Pan-Cancer analysis project	9	Dhanasar — Prong 2 (well-positioned)