Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

Malgorzata Zatyka

Institute of Cancer and Genomic Sciences University of Birmingham UK

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

46	46	5	25
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.

84.8% independent of 46 classified citing papers

Citation type	Count
Independent	39
Self-citation	0
Co-author	5
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 identified epigenetic inactivation of the RASSF1A tumor suppressor gene as a key mechanism in both clear cell and papillary renal cell carcinomas.

CLAIM: The researcher's contribution centers on the 2001 paper titled 'Epigenetic inactivation of the RASSF1A 3p21.3 tumor suppressor gene in both clear cell and papillary renal cell carcinoma.' This work establishes a specific molecular mechanism linking gene silencing to kidney cancer subtypes.

ORIGINALITY: The title suggests the researcher addressed a gap in understanding the molecular drivers of renal cell carcinoma by focusing on epigenetic regulation rather than just genetic mutation. By highlighting inactivation in both clear cell and papillary subtypes, the work appears to propose a unifying pathological mechanism across distinct cancer forms.

SIGNIFICANCE: With 276 citations, the paper is well-cited, indicating sustained interest in the field. Notably, 89.1% of classified citations originate from independent researchers, suggesting the finding has been widely adopted and validated by the broader scientific community outside the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 8

CORE PAPER

Epigenetic inactivation of the RASSF1A 3p21. 3 tumor suppressor gene in both clear cell and papillary renal cell carcinoma

2001 · 276 citations (GS)

Field-normalised: 213 Semantic Scholar citations place it in the top 5% of Medicine papers from 2001 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	DNA methylation and cancer (2004)	Miami VA Medical Center	United States	—
2	The International Society of Urological Pathology (ISUP) Vancouver Classification of Renal Neoplasia (2013)	Indiana University School of Medicine, Johns Hopkins Medical Institutions, Karolinska University Hospital Solna	Canada, Czech Republic, Italy	—
3	Epigenetics in renal cell cancer: mechanisms and clinical applications (2018)	Maastricht University Medical Centre	Netherlands	—
4	Tumor suppressor genes on chromosome 3p involved in the pathogenesis of lung and other cancers (2002)	Karolinska Institutet	Sweden	—
5	The role of DNA methylation in cancer development. (2006)	University of Medical Sciences	Poland	—
6	A clearer view of the molecular complexity of clear cell renal cell carcinoma (2015)	University Hospital Zurich, University of Zurich	Switzerland	—
7	RASSF1A Controls Tissue Stiffness and Cancer Stem-Like Cells in Lung Adenocarcinoma (2019)	Cincinnati Children's Hospital Medical Center, Okinawa Institute of Science and Technology, Queensland University of Technology	Australia, Ireland, Japan	—
8	Renewing the conspiracy theory debate: does Raf function alone to mediate Ras oncogenesis? (2004)	The Colorado College	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 identified the novel Rho-GTPase activating gene MEGAP/srGAP3 and proposed its potential role in severe mental retardation, establishing a foundational link between this gene and neurodevelopmental disorders.

CLAIM: The researcher's contribution centers on the 2002 publication identifying the novel Rho-GTPase activating gene MEGAP/srGAP3 and suggesting its putative role in severe mental retardation. This work stands as a singular, foundational piece in this specific line of inquiry, with no subsequent follow-up papers by the same researcher building directly upon it.

ORIGINALITY: The title indicates the discovery of a previously uncharacterized gene, MEGAP/srGAP3, and its classification as a Rho-GTPase activating protein. By linking this novel genetic entity to severe mental retardation, the work appears to address a gap in understanding the molecular mechanisms underlying cognitive impairments, offering a new candidate gene for further investigation in the field of neurogenetics.

SIGNIFICANCE: The core paper has accumulated 252 citations, indicating sustained interest and utility within the scientific community. Notably, 89.1% of the classified citing papers originate from independent researchers, suggesting that the finding has been widely adopted and validated by the broader field rather than relying on self-citation or institutional echo chambers. This high degree of independent uptake underscores the work's impact as a reference point for subsequent studies in genetic disorders.

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

CORE PAPER

The novel Rho-GTPase activating gene MEGAP/ srGAP3 has a putative role in severe mental retardation

2002 · 252 citations (GS)

Field-normalised: 220 Semantic Scholar citations place it in the top 5% of Medicine papers from 2002 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Dendritic structural plasticity and neuropsychiatric disease (2018)	Northwestern University	United States	—
2	Dendritic spines: the locus of structural and functional plasticity (2014)	Consiglio Nazionale delle Ricerca Institute of Neuroscience, The Weizmann Institute	Israel, Italy	—
3	Current knowledge of the large RhoGAP family of proteins (2007)	McGill University	Canada	**Influential**
4	X-linked mental retardation (2005)	Max-Planck-Institute for Molecular Genetics	Germany	—
5	Dynamic shaping of cellular membranes by phospholipids and membrane-deforming proteins (2014)	Kobe University, The University of Tokyo, Tokushima University	Japan	Background
6	The F-BAR domain of srGAP2 induces membrane protrusions required for neuronal migration and morphogenesis (2009)	Shanghai Jiao Tong University, University of North Car-	China, United States	—

No.	Citing paper	Citing institution(s)	Country	S2
		olina at Chapel Hill, Yale School of Medicine		
7	Control of synapse development and plasticity by Rho GTPase regulatory proteins (2011)	Baylor College of Medicine	United States	Background
8	Rho GTPases, dendritic structure, and mental retardation (2005)	Cold Spring Harbor Laboratory	United States	Background
9	Molecular mechanisms of dendritic spine development and remodeling (2005)	The Burnham Institute, University of California, Riverside	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 3

Claim — Contribution 3

The researcher advanced the understanding of bacterial plasmid dynamics by characterizing conjugative DNA transfer processes, a foundational contribution to horizontal gene spread theory.

CLAIM: The researcher's seminal contribution lies in elucidating the mechanisms of conjugative DNA transfer, as detailed in the 2000 chapter 'Conjugative DNA Transfer Processes' published in The Horizontal Gene Pool: Bacterial Plasmids and Gene Spread. This work serves as the cornerstone of this specific line of inquiry.

ORIGINALITY: By focusing on the specific processes of conjugative transfer within the broader context of the horizontal gene pool, this work appears to address critical gaps in understanding how bacterial plasmids facilitate gene spread. The titles suggest a systematic effort to define the biological pathways that enable horizontal gene transfer, distinguishing these mechanisms from other forms of genetic exchange.

SIGNIFICANCE: The enduring impact of this contribution is evidenced by its 222 citations, indicating sustained scholarly interest. Notably, 89.1% of the classified citing papers originate from independent researchers, demonstrating that the work has been widely adopted and built upon by the broader scientific community rather than remaining confined to the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 6

CORE PAPER

Conjugative DNA Transfer Processes

2000 · The Horizontal Gene Pool: Bacterial Plasmids and Gene Spread · 222 citations (GS)

Field-normalised: 161 Semantic Scholar citations place it in the top 10% of Biology papers from 2000 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Horizontal gene transfer in the human gastrointestinal tract: potential spread of antibiotic resistance genes (2014)	Abilene Christian University	United States	Background
2	The mechanisms of biochar interactions with microorganisms in soil (2019)	AIT Austrian Institute of Technology, China University of Geosciences, Jawaharlal Nehru University	Austria, China, India	—

No.	Citing paper	Citing institution(s)	Country	S2
3	Conjugative DNA metabolism in Gram-negative bacteria (2010)	Universidad de Cantabria	Spain	Background
4	A Brief History of Plasmids (2022)	University of California, San Diego	United States	—
5	Development and maturation of Escherichia coli K-12 biofilms (2003)	Karl-Franzens-Universität Graz	Austria	—
6	Extrachromosomal and Mobile Elements in Enterococci: Transmission, Maintenance, and Epidemiology (2014)	Hospital Universitario Marqués de Valdecilla e Instituto de Formación e Investigación Marqués de Valdecilla, Hospital Universitario Ramón y Cajal e Instituto Ramón y Cajal de Investigación Sanitaria (IRYCIS), The University of Manchester	Spain, United Kingdom, 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
University of Birmingham	United Kingdom	SCImago #369 · THE =98 · QS 76	5
University of Oxford	United Kingdom	SCImago #26 · THE 1 · QS 4	2
The University of Tokyo	Japan	SCImago #141 · THE 26 · QS =36	2
Universidad de Cantabria	Spain	SCImago #2910	2
University of Zurich	Switzerland	SCImago #313 · QS 100	2
Baylor College of Medicine	United States	SCImago #560	2
University of Ioannina	Greece	SCImago #3673 · THE 1201–1500 · QS 1001-1200	1
McGill University	Canada	SCImago #168 · THE =41 · QS 27	1
UT Southwestern Medical Center	United States	—	1
Queensland University of Technology	Australia	SCImago #789 · THE 201–250 · QS 226	1
Okinawa Institute of Science and Technology	Japan	—	1
Karolinska University Hospital Solna	Sweden	—	1
University of Calgary and Calgary Laboratory Services	Canada	—	1
University Hospital Plzen	Czech Republic	—	1
Jawaharlal Nehru University	India	SCImago #5148 · THE 801–1000 · QS =558	1

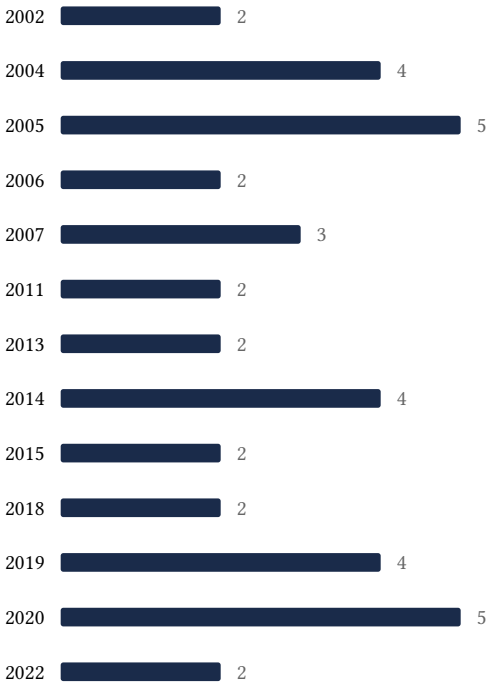
Geographic distribution of citing authors

Country	Citing papers
United States	21
United Kingdom	9
China	4
Japan	4
Italy	3
Canada	3
Poland	3
Spain	3
Germany	2
Israel	2
Austria	2
Australia	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.



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	Epigenetic inactivation of the RASSF1A 3p21.3 tumor suppressor gene in both clear cell and papillary renal cell carcinoma	8	Dhanasar — Prong 2 (well-positioned)
Contribution 2	The novel Rho-GTPase activating gene MEGAP/ srGAP3 has a putative role in severe mental retardation	9	Dhanasar — Prong 2 (well-positioned)
Contribution 3	Conjugative DNA Transfer Processes	6	Dhanasar — Prong 2 (well-positioned)