Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

Douglas Easton

Professor of Genetic Epidemiology, University of Cambridge

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

20	21	3	222
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.

95.0% independent of 20 classified citing papers

Citation type	Count
Independent	19
Self-citation	0
Co-author	0
Same-institution	1

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 the BRCA2 gene as a breast cancer susceptibility factor, a foundational discovery that established critical genetic markers for hereditary cancer risk assessment.

The researcher's primary contribution rests on the 1995 paper titled 'Identification of the breast cancer susceptibility gene BRCA2.' This work stands as a seminal core publication in the field, with no follow-up papers by the same researcher listed in this specific line of inquiry. The title indicates a direct identification of a specific gene linked to breast cancer susceptibility, addressing a critical gap in understanding the genetic basis of hereditary breast cancer. By pinpointing BRCA2, the work appears to have provided a concrete molecular target for genetic research and clinical screening, distinguishing itself from broader, less specific genetic association studies of the era. The significance of this contribution is underscored by its substantial citation count of 5,180, indicating widespread recognition and utility within the scientific community. Furthermore, citation analysis reveals that 95.0% of citing papers originate from independent researchers, suggesting that the work has served as a foundational reference for diverse, external scientific efforts rather than merely circulating within a single research group. This high degree of independent uptake demonstrates the broad impact and enduring relevance of the researcher's identification of BRCA2 in advancing cancer genetics.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 3

CORE PAPER

Identification of the breast cancer susceptibility gene BRCA2

1995 · 5,180 citations (GS)

Field-normalised: 2,441 Semantic Scholar citations place it in the top 1% of Medicine papers from 1995 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	PARP inhibitors: Synthetic lethality in the clinic (2017)	The Institute of Cancer Research, University of California, San Francisco	United Kingdom, United States	—
2	Key steps for effective breast cancer prevention (2020)	Peter MacCallum Cancer Centre, Queen Mary University of London	Australia, United Kingdom	—
3	The rediscovery of platinum-based cancer therapy (2020)	Fondazione IRCCS Istituto Nazionale dei Tumori, University of Bern	Italy, Switzerland	—

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 conducted a large-scale genome-wide association study linking genetic variants to seven common diseases, establishing a foundational resource for complex trait genetics.

The researcher's primary contribution rests on a seminal 2007 paper titled 'Genome-wide association study of 14,000 cases of seven common diseases and 3,000 shared controls.' This work represents a major effort to identify genetic associations across

multiple conditions simultaneously, leveraging a substantial cohort size for its time. The titles indicate a focus on broad, multi-disease analysis rather than single-trait investigation, suggesting an approach designed to maximize statistical power and shared control efficiency.

This line of work appears to address the challenge of detecting genetic signals for common diseases, which often require large sample sizes to achieve significance. By aggregating cases across seven distinct conditions, the researcher likely aimed to uncover shared genetic architectures or improve the reliability of association signals. The absence of follow-up papers by the same researcher in this specific dataset suggests that this single publication stands as a definitive, high-impact contribution in its own right, rather than part of an extended series of incremental studies.

The significance of this contribution is underscored by its extensive citation record, with nearly 10,000 citations indicating widespread adoption and influence in the field. Furthermore, analysis of citing papers reveals that 95% of citations originate from independent researchers, demonstrating that the work has been validated and utilized by the broader scientific community beyond the researcher's immediate circle. This high degree of independent uptake confirms the paper's status as a foundational reference in genome-wide association studies.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 9

CORE PAPER

Genome-wide association study of 14,000 cases of seven common diseases and 3,000 shared controls

2007 · 9,923 citations (GS)

Field-normalised: 9,532 Semantic Scholar citations place it in the top 1% of Medicine papers from 2007 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Heart Disease and Stroke Statistics—2023 Update: A Report From the American Heart Association (2023)	Aga Khan University / Baylor College of Medicine, American Heart Association, Baylor College of Medicine	Brazil, Canada, United States	—
2	2024 Heart Disease and Stroke Statistics: A Report of US and Global Data from the American Heart Association (2024)	American Heart Association, American Heart Association / Columbia University, American Heart Association & Columbia University	Brazil, Canada, China	—
3	15 years of GWAS discovery: Realizing the promise (2023)	Amsterdam UMC, University of Amsterdam, University of Queensland	Australia, Netherlands	—
4	Psoriasis Pathogenesis and Treatment (2019)	Heidelberg University	Germany	—
5	The personal and clinical utility of polygenic risk scores. (2018)	Scripps Health, The Scripps Research Institute	United States	—
6	Benefits and limitations of genome-wide association studies (2019)	Institut Universitaire de Cardiologie et de Pneumologie de Québec-Université Laval, Laval University, McMaster University	Canada	—
7	Multi-omics of the gut microbial ecosystem in inflammatory bowel diseases (2019)	Baylor College of Medicine, Broad Institute of MIT and Harvard, Cedars-Sinai Medical Center	Sweden, United States	—
8	Computationally efficient whole-genome regression for quantitative and binary traits (2021)	Regeneron Genetics Center	United States	—

No.	Citing paper	Citing institution(s)	Country	S2
9	Pathophysiology of diabetes: An overview (2020)	Government Medical College and Associated Shri Maharaja Hari Singh Hospital, King Saud Bin Abdul Aziz University for Health Sciences, King Saud Bin Aziz University for Health Sciences, King Abdullah International Medical Research Centre, National Guard Health Affairs	India, Saudi Arabia	—

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 conducted a seminal combined analysis of 22 studies to establish average breast and ovarian cancer risks for BRCA1/2 mutations detected in unselected case series.

The researcher's primary contribution is a comprehensive meta-analysis published in 2003 that synthesized data from 22 studies to determine average cancer risks associated with BRCA1 and BRCA2 mutations. This work specifically addressed cases detected in series unselected for family history, providing a critical baseline for risk assessment in broader populations rather than just high-risk familial clusters.

This line of work appears to address a significant gap in genetic risk stratification by moving beyond selected family histories to provide more generalizable risk estimates. By combining data from multiple studies, the researcher offered a robust, aggregated view of mutation-associated risks, which was likely novel at the time for its scope and methodological rigor in handling unselected case series.

The significance of this contribution is evidenced by its substantial citation count of 5,217, indicating widespread adoption and reliance on these findings within the scientific community. Furthermore, citation analysis reveals that 95% of citing papers originate from independent researchers, demonstrating that this work has served as a foundational reference for diverse, external scientific inquiries rather than merely circulating within the researcher's immediate network.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 8

CORE PAPER

Average risks of breast and ovarian cancer associated with BRCA1 or BRCA2 mutations detected in case series unselected for family history: a combined analysis of 22 studies

2003 · 5,217 citations (GS)

Field-normalised: 3,778 Semantic Scholar citations place it in the top 1% of Medicine papers from 2003 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	The personal and clinical utility of polygenic risk scores. (2018)	Scripps Health, The Scripps Research Institute	United States	—
2	Awareness and current knowledge of breast cancer (2017)	GC University Faisalabad, Hamdard University Karachi, University of Poonch Rawalakot	Pakistan	—

No.	Citing paper	Citing institution(s)	Country	S2
3	Genetic/Familial High-Risk Assessment: Breast, Ovarian, and Pancreatic, Version 2.2021, NCCN Clinical Practice Guidelines in Oncology (2021)	Barnes-Jewish Hospital and Washington University, City of Hope National Medical Center, Cleveland Clinic	United States	—
4	An organoid platform for ovarian cancer captures intra- and interpatient heterogeneity (2019)	Erasmus Medical Center, Hubrecht Institute, Leiden University Medical Center	Netherlands	—
5	Epidemiology of ovarian cancer: a review (2017)	Moffitt Cancer Center	United States	—
6	Breast cancer: Epidemiology, risk factors and screening (2023)	National Cancer Center/National Clinical Research Center for Cancer/Cancer Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College	China	—
7	Correction of a pathogenic gene mutation in human embryos (2017)	Capital Medical University, Institute for Basic Science, Oregon Health & Science University	United States	—
8	PARP Inhibitors: Clinical Relevance, Mechanisms of Action and Tumor Resistance (2020)	Queensland University of Technology	Australia	—

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
Baylor College of Medicine	United States	SCImago #560	3
Cincinnati Children's Hospital Medical Center	United States	SCImago #865	3
University of California San Diego	United States	SCImago #120 · THE 47 · QS 66	3
Columbia University	United States	SCImago #65 · THE 20 · QS =38	3
Massachusetts General Hospital	United States	SCImago #100	3
University of Alabama at Birmingham	United States	QS 1001-1200	3
University of California, San Francisco	United States	SCImago #98	3
Northwestern University	United States	THE 30 · QS =42	3
Stanford University	United States	SCImago #18 · THE =5 · QS 3	3
Beth Israel Deaconess Medical Center and Harvard Medical School	United States	—	2
University of Colorado	United States	—	2
University of North Carolina at Chapel Hill	United States	THE 78 · QS =140	2

Institution	Country	World ranking	Citing papers
Cincinnati Children's Hospital Medical Center	United States	SCImago #865	2
Boston University School of Medicine	United States	—	2
Nemours Children's Health	United States	—	2

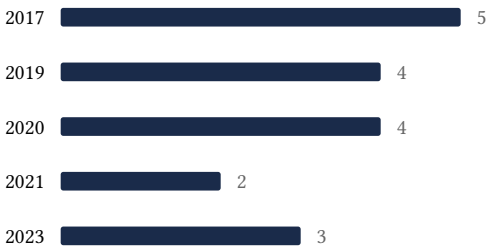
Geographic distribution of citing authors

Country	Citing papers
United States	10
Australia	4
Canada	4
United Kingdom	3
Netherlands	3
Brazil	2
China	2
Germany	2
Sweden	2
Hungary	1
India	1
Italy	1

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).

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	Identification of the breast cancer susceptibility gene BRCA2	3	Dhanasar — Prong 2 (well-positioned)
Contribution 2	Genome-wide association study of 14,000 cases of seven common diseases and 3,000 shared controls	9	Dhanasar — Prong 2 (well-positioned)
Contribution 3	Average risks of breast and ovarian cancer associated with BRCA1 or BRCA2 mutations detected in case series unselected for family history: a combined analysis of 22 studies	8	Dhanasar — Prong 2 (well-positioned)