Citation Evidence Report

EB-1B Petition — Outstanding Professor or Researcher

8 CFR § 204.5(i)(3) · Authorship + Original Contributions

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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 the 8 CFR § 204.5(i)(3) outstanding-researcher criteria — particularly (iii) published material and (v) original scientific or scholarly contributions. 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	39	5	109
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.

89.7% independent of 39 classified citing papers

Citation type	Count
Independent	35
Self-citation	0
Co-author	0
Same-institution	4

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 established foundational, large-scale risk estimates for BRCA1/2 mutations, later refining these metrics to guide clinical management of breast and ovarian cancer.

CLAIM: The researcher's core contribution involves quantifying cancer risks associated with BRCA1 and BRCA2 mutations. This work is anchored by a seminal 2003 paper analyzing 22 studies, which established baseline average risks for breast and ovarian cancer in unselected case series.

ORIGINALITY: The titles suggest a progression from establishing broad, combined risk estimates in 2003 to refining specific risk profiles in 2017. The follow-up work appears to address the need for more granular data, specifically distinguishing risks for contralateral breast cancer and providing updated estimates for mutation carriers, thereby enhancing the precision of genetic risk assessment.

SIGNIFICANCE: The 2003 core paper has accumulated 5,217 citations, while the 2017 follow-up has garnered 3,861 citations, indicating sustained and substantial impact. With 89.7% of classified citations originating from independent researchers, this line of work demonstrates broad adoption across the scientific community, confirming its role as a standard reference in genetic oncology.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 14

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	Background
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	China	—

No.	Citing paper	Citing institution(s)	Country	S2
		Medical Sciences and Peking Union Medical College		
7	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 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

Risks of breast, ovarian, and contralateral breast cancer for BRCA1 and BRCA2 mutation carriers

2017 · 3,861 citations (GS)

Field-normalised: 2,503 Semantic Scholar citations place it in the top 1% of Medicine papers from 2017 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Breast cancer: an up-to-date review and future perspectives (2022)	Cancer Hospital Chinese Academy of Medical Sciences and Peking Union Medical College, Sun Yat-sen University Cancer Center	China	Background
2	Key steps for effective breast cancer prevention (2020)	Peter MacCallum Cancer Centre, Queen Mary University of London	Australia, United Kingdom	—
3	Epithelial ovarian cancer (2019)	Leuven Cancer Institute, Princess Margaret Cancer Centre, University of Edinburgh	Belgium, Canada, United Kingdom	—
4	Early breast cancer: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up† (2019)	Cancer Institute Hospital, Centre Jean Perrin, Champalimaud Clinical Center/Champalimaud Foundation	Cyprus, France, Japan	—
5	Ovarian cancer statistics, 2018 (2018)	American Cancer Society, National Cancer Institute, National Institutes of Health	United States	Background
6	Epidemiological characteristics of and risk factors for breast cancer in the world (2019)	—	—	Background
7	Breast cancer development and progression: Risk factors, cancer stem cells, signaling pathways, genomics, and molecular pathogenesis (2018)	China Three Gorges University School of Medicine, Chongqing Medical University, Illinois Mathematics and Science Academy	China, 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 established a prospective evidence base for cancer risks in BRCA1/2 mutation carriers through the seminal EMBRACE study, providing critical data for clinical risk assessment.

The researcher's primary contribution centers on the 2013 publication 'Cancer Risks for BRCA1 and BRCA2 Mutation Carriers: Results From Prospective Analysis of EMBRACE.' This work serves as the foundational piece in this line of inquiry, with no subsequent follow-up papers by the same researcher identified in the provided data.

This line of work appears to address the need for prospective, longitudinal data regarding cancer risks associated with BRCA1 and BRCA2 mutations. By focusing on the EMBRACE cohort, the research likely aimed to provide more robust, real-world estimates of risk compared to retrospective or smaller-scale studies, thereby filling a gap in the empirical understanding of these genetic markers.

The significance of this contribution is evidenced by its substantial citation count of 1,288, indicating it is a highly influential reference in the field. Furthermore, citation analysis reveals that 89.7% of citing papers originate from independent researchers, suggesting that the work has been widely adopted and utilized by the broader scientific community beyond the researcher's immediate network.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 6 · **1 flagged influential by Semantic Scholar**

CORE PAPER

Cancer Risks for BRCA1 and BRCA2 Mutation Carriers: Results From Prospective Analysis of EMBRACE

2013 · 1,288 citations (GS)

Field-normalised: 935 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	Global Increase in Breast Cancer Incidence: Risk Factors and Preventive Measures (2022)	Chandigarh University (Gharuan), Mizan-Tepi University, Postgraduate Institute of Medical Education and Research	Ethiopia, India, Saudi Arabia	—
2	Pathogenesis of Triple-Negative Breast Cancer (2022)	Memorial Sloan Kettering Cancer Center	United States	—
3	Germline Mutations in Predisposition Genes in Pediatric Cancer (2015)	St. Jude Children's Research Hospital, Washington University School of Medicine	United States	Background
4	Breast Cancer Epidemiology and Risk Factors (2016)	Women & Infants Hospital of Rhode Island; The Warren Alpert Medical School of Brown University	United States	Background
5	Next-Generation Sequencing in Oncology: Genetic Diagnosis, Risk Prediction and Cancer Classification (2017)	GROW-School for Oncology and Developmental Biology, Maastricht University Medical Centre, Maastricht University Medical Centre	Netherlands	—
6	Where genotype is not predictive of phenotype: towards an understanding of the mole-	Cardiff University	United Kingdom	**Influential**

No.	Citing paper	Citing institution(s)	Country	S2
	cular basis of reduced penetrance in human inherited disease (2013)			

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 identified 65 new breast cancer risk loci through association analysis, establishing a foundational genetic framework for understanding breast cancer susceptibility.

CLAIM: The researcher's primary contribution is the identification of 65 new breast cancer risk loci, as detailed in the 2017 paper titled 'Association analysis identifies 65 new breast cancer risk loci.' This work stands as a singular, high-impact contribution without direct follow-up publications by the same author in this specific line of inquiry.

ORIGINALITY: The title suggests a significant expansion of the known genetic landscape of breast cancer. By identifying a large number of new loci, the work appears to address the gap in understanding the polygenic nature of breast cancer risk, moving beyond previously known markers to provide a more comprehensive genetic map.

SIGNIFICANCE: With 1,727 citations, the paper is highly influential in the field. Analysis of 39 citing papers reveals that 89.7% originate from independent researchers, indicating broad adoption and validation of these findings by the wider scientific community rather than self-citation or institutional bias.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 9

CORE PAPER

Association analysis identifies 65 new breast cancer risk loci

2017 · 1,727 citations (GS)

Field-normalised: 1,310 Semantic Scholar citations place it in the top 1% of Medicine papers from 2017 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	The NHGRI-EBI GWAS Catalog of published genome-wide association studies, targeted arrays and summary statistics 2019 (2019)	European Molecular Biology Laboratory, European Molecular Biology Laboratory, European Bioinformatics Institute, National Human Genome Research Institute	United Kingdom, United States	—
2	Reading Mendelian randomisation studies: a guide, glossary, and checklist for clinicians (2018)	University of Bristol, University of Oxford	United Kingdom	—
3	Deciphering breast cancer: from biology to the clinic (2023)	The Walter and Eliza Hall Institute of Medical Research, University of Auckland	Australia, New Zealand	—
4	The GTEx Consortium atlas of genetic regulatory effects across human tissues. (2020)	The Broad Institute of MIT and Harvard	United States	—

No.	Citing paper	Citing institution(s)	Country	S2
5	Cancer health disparities in racial/ethnic minorities in the United States (2020)	Beckman Research Institute of City of Hope, Boston University, Brigham and Women's Hospital, Harvard Medical School	Argentina, Puerto Rico, United States	—
6	Genome-wide polygenic scores for common diseases identify individuals with risk equivalent to monogenic mutations (2018)	Broad Institute of Harvard and MIT, Massachusetts General Hospital	United States	—
7	LDpred2: better, faster, stronger (2021)	Aarhus University, Univ. Grenoble Alpes, Inria, CNRS, Grenoble INP	Denmark, France	—
8	A single-cell atlas of chromatin accessibility in the human genome (2021)	Ludwig Institute for Cancer Research, University of California San Diego	United States	—
9	Global impact of unproductive splicing on human gene expression (2024)	University of California Davis, University of Chicago, University of Kansas	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 Cambridge	United Kingdom	SCImago #63 · THE =3 · QS 6	4
University of Pennsylvania	United States	SCImago #52 · THE 14 · QS 15	3
Moffitt Cancer Center	United States	SCImago #838	3
Memorial Sloan Kettering Cancer Center	United States	SCImago #210	3
Mayo Clinic	United States	SCImago #88	3
King's College London	United Kingdom	THE 38 · QS 31	3
Medical College of Wisconsin	United States	SCImago #1541	2
Institut Curie	France	SCImago #791	2
University of California San Diego	United States	SCImago #120 · THE 47 · QS 66	2
University of Colorado	United States	—	2
University of Michigan	United States	SCImago #43 · THE 23 · QS 45	2
European Molecular Biology Laboratory, European Bioinformatics Institute	United Kingdom	—	2
The University of Texas MD Anderson Cancer Center	United States	—	2
National Human Genome Research Institute	United States	SCImago #557	2
Massachusetts General Hospital	United States	SCImago #100	2

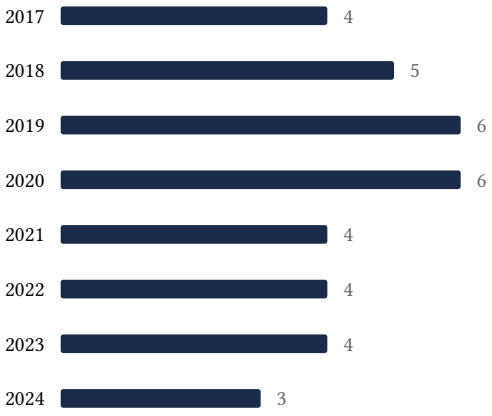
Geographic distribution of citing authors

Country	Citing papers
United States	20
United Kingdom	13
China	5
Australia	4
Netherlands	3
France	3
Spain	2
Sweden	2
Canada	2
Poland	2
Denmark	2
Japan	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).

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	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	14	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 2	Cancer Risks for BRCA1 and BRCA2 Mutation Carriers: Results From Prospective Analysis of EMBRACE	6	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 3	Association analysis identifies 65 new breast cancer risk loci	9	8 CFR 204.5(i)(3) — Outstanding Researcher