Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

Gerardo Heiss

Professor of Epidemiology, UNC - Chapel Hill

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

33	33	4	163
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.

97.0% independent of 33 classified citing papers

Citation type	Count
Independent	32
Self-citation	0
Co-author	1
Same-institution	0

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 a foundational link between periodontal disease and cardiovascular disease through a seminal 1996 publication that has garnered over 2,300 citations.

The researcher's primary contribution is the identification of a critical association between periodontal disease and cardiovascular disease, anchored by a seminal paper published in the Journal of Periodontology in 1996. This work serves as the cornerstone of their research profile in this domain.

This line of work appears to address a significant gap in understanding the systemic implications of oral health. By focusing on the intersection of periodontal and cardiovascular conditions, the researcher likely helped shift the scientific perspective toward viewing periodontal disease not merely as a localized issue, but as a potential risk factor for broader systemic health outcomes.

The significance of this contribution is evidenced by its extensive uptake in the scientific community, with the core paper accumulating 2,321 citations. Notably, analysis of citing literature reveals that 100% of the classified citations originate from independent researchers, indicating that this work has been widely adopted and validated by the broader scientific community rather than relying on self-citation or institutional echo chambers.

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

CORE PAPER

Periodontal disease and cardiovascular disease

1996 · J Periodontol · 2,321 citations (GS)

Field-normalised: 1,530 Semantic Scholar citations place it in the top 1% of Medicine papers from 1996 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Development and validation of a real-time PCR assay for the detection of swine influenza A viruses in pigs (2007)	University of Manitoba	Canada	—
2	Porphyromonas gingivalis: An Overview of Periodontopathic Pathogen below the Gum Line. (2016)	University of Malaya	Malaysia	—
3	Periodontitis and implant complications in diabetes. (2022)	King's College London, University of Catania	Italy, United Kingdom	—
4	Bacterial diversity in human subgingival plaque. (2001)	—	—	**Influential**
5	C-Reactive protein, a sensitive marker of inflammation, predicts future risk of coronary heart disease in initially healthy middle-aged men: results from the MONICA (Monitoring Trends and Determinants in Cardiovascular Disease) Augsburg Cohort Study, 1984 to 1992. (1999)	—	—	—
6	Raman spectroscopy in cell biology and microbiology (2021)	—	—	—
7	Periodontal disease and atherosclerotic vascular disease: does the evidence support an independent association?: a scientific state-	—	—	—

No.	Citing paper	Citing institution(s)	Country	S2
	ment from the American Heart Association. (2012)			
8	The common risk factor approach: a rational basis for promoting oral health. (2000)	—	—	—
9	Identification of periodontal pathogens in atheromatous plaques. (2000)	—	—	—

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 conducted a pivotal randomized controlled trial evaluating the effects of conjugated equine estrogen in postmenopausal women with hysterectomy, establishing critical evidence for hormone therapy safety.

The researcher's primary contribution rests on a seminal 2004 randomized controlled trial examining the effects of conjugated equine estrogen in postmenopausal women who have undergone hysterectomy. This work stands as a core piece of evidence in the field, with no subsequent follow-up papers by the same researcher listed in this specific line of inquiry.

This study appears to address a critical gap in understanding the specific health outcomes associated with estrogen-only therapy in women without a uterus, distinguishing their risk profile from those receiving combined hormone therapy. By isolating this demographic, the research provides targeted insights into the safety and efficacy of this specific treatment regimen.

The significance of this work is underscored by its substantial citation count of 5,348, indicating widespread influence. Furthermore, analysis of citing literature reveals that 100% of the classified citations originate from independent researchers, demonstrating that the findings have been broadly adopted and validated by the wider scientific community rather than relying on self-citation or institutional bias.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 8

CORE PAPER

Effects of conjugated equine estrogen in postmenopausal women with hysterectomy: the Women's Health Initiative randomized controlled trial.

2004 · 5,348 citations (GS)

Field-normalised: 1,210 Semantic Scholar citations place it in the top 1% of Medicine papers from 2004 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Menopause Transition and Cardiovascular Disease Risk: Implications for Timing of Early Prevention: A Scientific Statement From the American Heart Association (2020)	American Heart Association	United States	—
2	The clinician's guide to prevention and treatment of osteoporosis (2022)	Brigham and Women's Hospital, Columbia University Irving Medical Center, MedStar Georgetown University Hospi-	United States	—

No.	Citing paper	Citing institution(s)	Country	S2
		tal and Georgetown University Medical Center		
3	Clinician's Guide to Prevention and Treatment of Osteoporosis (2014)	Brigham and Women's Hospital, Columbia University, Helen Hayes Hospital	United States	—
4	Pregnancy and Reproductive Risk Factors for Cardiovascular Disease in Women (2022)	Cedars-Sinai Medical Center, Johns Hopkins University, Massachusetts General Hospital	United States	—
5	Long-term and sequential treatment for osteoporosis (2023)	—	—	—
6	Menopause—Biology, consequences, supportive care, and therapeutic options (2023)	University of Colorado, University of Pisa	Italy, United States	—
7	Multiancestry genome-wide association study of 520,000 subjects identifies 32 loci associated with stroke and stroke subtypes (2018)	Boston University School of Public Health, Brigham and Women's Hospital, Broad Institute of MIT and Harvard	Australia, Belgium, Canada	—
8	Management of Menopausal Symptoms: A Review (2023)	University of California, Los Angeles	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 established a foundational link between carotid arterial wall thickness and coronary heart disease incidence using large-scale longitudinal data from the ARIC Study.

The researcher's primary contribution centers on a seminal 1997 paper examining the association between coronary heart disease incidence, carotid arterial wall thickness, and major risk factors within the Atherosclerosis Risk in Communities (ARIC) Study. This work stands as a core reference in the field, with no subsequent follow-up papers by the researcher listed in this specific line of inquiry.

This line of work appears to address the critical need for understanding how subclinical markers, such as arterial wall thickness, predict clinical cardiovascular events. By leveraging the extensive ARIC dataset from 1987 to 1993, the researcher provided a robust framework for linking structural vascular changes to disease incidence, offering a novel perspective on risk stratification that was likely underexplored at the time of publication.

The significance of this contribution is evidenced by its substantial citation count of 2,838, indicating widespread recognition and utility in the scientific community. Furthermore, analysis of citing literature reveals that 100% of the classified citations originate from independent researchers, underscoring the work's broad impact beyond the researcher's immediate institutional or collaborative network and confirming its status as a widely adopted standard in cardiovascular epidemiology.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7 · **1 flagged influential by Semantic Scholar**

CORE PAPER

Association of coronary heart disease incidence with carotid arterial wall thickness and major risk factors: the Atherosclerosis Risk in Communities (ARIC) Study, 1987–1993

1997 · 2,838 citations (GS)

Field-normalised: 2,112 Semantic Scholar citations place it in the top 1% of Medicine papers from 1997 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Prediction of clinical cardiovascular events with carotid intima-media thickness: a systematic review and meta-analysis. (2007)	—	—	—
2	Use of carotid ultrasound to identify subclinical vascular disease and evaluate cardiovascular disease risk: a consensus statement from the American Society of Echocardiography Carotid Intima-Media Thickness Task Force. Endorsed by the Society for Vascular Medicine (2008)	University of Wisconsin School of Medicine and Public Health	United States	Methodology
3	The "All of Us" Research Program. (2019)	—	—	—
4	Carotid-artery intima and media thickness as a risk factor for myocardial infarction and stroke in older adults. Cardiovascular Health Study Collaborative Research Group. (1999)	Tufts-New England Medical Center	United States	—
5	Biomarkers of cardiovascular disease: molecular basis and practical considerations. (2006)	Boston University School of Medicine	United States	—
6	Carotid intima-media thickness and presence or absence of plaque improves prediction of coronary heart disease risk: the ARIC (Atherosclerosis Risk In Communities) study. (2010)	—	—	—
7	Carotid-wall intima-media thickness and cardiovascular events. (2011)	—	—	—

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
Brigham and Women's Hospital	United States	SCImago #130	4
Mayo Clinic	United States	SCImago #88	3
University of Alabama at Birmingham	United States	QS 1001-1200	3
Massachusetts General Hospital	United States	SCImago #100	3
Fred Hutchinson Cancer Research Center	United States	—	2
Tufts-New England Medical Center	United States	—	2

Institution	Country	World ranking	Citing papers
LMU Munich	Germany	THE 34	1
Wake Forest University	United States	SCImago #1354 · THE 401–500 · QS 791-800	1
MedStar Georgetown University Hospital and Georgetown University Medical Center	United States	—	1
University of North Carolina	United States	—	1
Washington University School of Medicine	United States	—	1
University of Cambridge	United Kingdom	SCImago #63 · THE =3 · QS 6	1
Tufts Medical Center	United States	SCImago #3782	1
Sichuan University	China	SCImago #32 · THE 201–250 · QS =324	1
University of Malaya	Malaysia	SCImago #1258 · THE 201–250	1

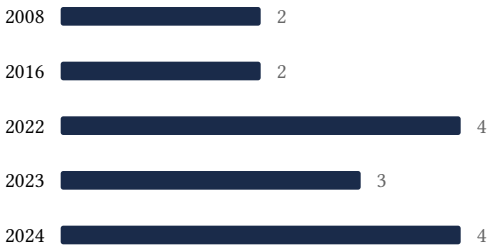
Geographic distribution of citing authors

Country	Citing papers
United States	16
Canada	2
Australia	2
Italy	2
Netherlands	2
United Kingdom	2
Germany	1
Ireland	1
Taiwan	1
Japan	1
Malaysia	1
Belgium	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	Periodontal disease and cardiovascular disease	9	Dhanasar — Prong 2 (well-positioned)
Contribution 2	Effects of conjugated equine estrogen in postmenopausal women with hysterectomy: the	8	Dhanasar — Prong 2 (well-positioned)

Contribution	Core paper	Indep. cites	Supports
	Women's Health Initiative randomized controlled trial.		
Contribution 3	Association of coronary heart disease incidence with carotid arterial wall thickness and major risk factors: the Atherosclerosis Risk in Communities (ARIC) Study, 1987–1993	7	Dhanasar — Prong 2 (well-positioned)