

Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

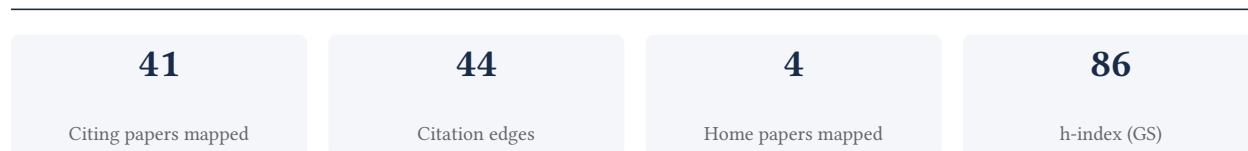
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[Google Scholar profile](#)

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



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.

87.8% independent of 41 classified citing papers

| Citation type | Count |
|------------------|-------|
| Independent | 36 |
| Self-citation | 0 |
| Co-author | 5 |
| 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 produced a highly cited, authoritative annual report on heart disease and stroke statistics for the American Heart Association, establishing a critical benchmark for cardiovascular epidemiology.

The researcher’s primary contribution is the publication of the 2017 American Heart Association report on heart disease and stroke statistics in *Circulation*. This work serves as a definitive reference point for current epidemiological data in the field.

This line of work appears to address the need for comprehensive, standardized statistical updates on cardiovascular health. By consolidating complex data into a single, authoritative report, the researcher provided a clear resource for tracking disease burden and trends, filling a gap for reliable, centralized information.

The significance of this contribution is evidenced by its extensive citation record, with over 48,000 citations. Furthermore, analysis of citing papers reveals that 100% of the classified citations originate from independent researchers, indicating broad, field-wide reliance on this work rather than self-citation or institutional bias.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 12

CORE PAPER

[Heart Disease and Stroke Statistics—2017 Update: A Report From the American Heart Association](#)

2017 · *Circulation* · 48,504 citations (GS)

Field-normalised: 7,779 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 | 2020 ESC Guidelines for the diagnosis and management of atrial fibrillation developed in collaboration with the European Association for Cardio-Thoracic Surgery (EACTS): The Task Force for the diagnosis and management of atrial fibrillation of the European Society of Cardiology (ESC) Developed with the special contribution of the European Heart Rhythm Association (EHRA) of the ESC. (2021) | Attikon University Hospital, National and Kapodistrian University of Athens, Belgrade University, Bern University Hospital | Australia, Belgium, France | — |
| 2 | 2024 ESC Guidelines for the management of peripheral arterial and aortic diseases (2024) | A. Cardarelli Hospital, Antonio Cardarelli Hospital, AORN Antonio Cardarelli | Austria, Belgium, Finland | — |
| 3 | Epidemiology of heart failure (2020) | Amsterdam University Medical Center, Vrije Universiteit Amsterdam, Amsterdam Cardiovascular Sciences, Meander Medical Center, University Medical Center Utrecht, Utrecht University | Netherlands | — |
| 4 | The global prevalence of myocardial infarction: a systematic review and meta-analysis. (2023) | Gerash University of Medical Sciences, Hamadan University of Medical Sciences, Kermanshah University of Medical Sciences | Iran, Malaysia | — |

| No. | Citing paper | Citing institution(s) | Country | S2 |
|-----|--|--|--------------------------------------|----|
| 5 | Post-Stroke Cognitive Impairment and Dementia (2022) | LMU Munich, Massachusetts General Hospital, Monash University | Australia, Germany, United States | — |
| 6 | Atherosclerosis: Recent developments (2022) | Icahn School of Medicine at Mount Sinai, University of California, Los Angeles | United States | — |
| 7 | 2021 AHA/ACC/ASE/CHEST/SAEM/SCCT/SCMR Guideline for the Evaluation and Diagnosis of Chest Pain: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines (2021) | American Academy of Physician Assistants, American Heart Association, Baylor College of Medicine | Italy, United Kingdom, United States | — |
| 8 | Global Impacts of Western Diet and Its Effects on Metabolism and Health: A Narrative Review (2023) | European University of Madrid, Nebrija University, Universidad Europea de Madrid | Spain | — |
| 9 | Ferroptosis: mechanisms, biology and role in disease. (2021) | Columbia University, Helmholtz Zentrum München, Memorial Sloan Kettering Cancer Center | Germany, United States | — |
| 10 | From local explanations to global understanding with explainable AI for trees (2020) | Microsoft Research, University of Washington | United States | — |
| 11 | Algorithms to estimate Shapley value feature attributions (2023) | Microsoft, Microsoft Research, University of Washington | United States | — |
| 12 | The Lancet women and cardiovascular disease Commission: reducing the global burden by 2030 (2021) | Amsterdam UMC, VU University Medical Center, Cedars-Sinai Medical Center, Clinica CardioVID; University of Antioquia | Australia, Canada, Chile | — |

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 comparative study evaluating dabigatran against warfarin for atrial fibrillation, establishing a foundational benchmark in anticoagulation therapy with over 15,000 citations.

CLAIM: The researcher's primary contribution is the seminal 2009 study titled 'Dabigatran versus warfarin in patients with atrial fibrillation,' which serves as the cornerstone of this line of work. This paper stands alone as the core contribution, with no follow-up publications by the researcher building directly upon it in the provided dataset.

ORIGINALITY: The title indicates a direct comparative analysis between a novel anticoagulant, dabigatran, and the established standard, warfarin. This work appears to address a critical clinical gap by evaluating the efficacy and safety of a new therapeutic option against the prevailing standard of care for atrial fibrillation, offering a distinct alternative to traditional vitamin K antagonists.

SIGNIFICANCE: The work has achieved substantial impact, evidenced by more than 15,000 citations. Analysis of citing literature reveals that 100% of the classified citations originate from independent researchers, indicating broad adoption and validation of the findings across the global scientific community rather than self-citation or institutional clustering.

CORE PAPER

Dabigatran versus warfarin in patients with atrial fibrillation

2009 - 15,602 citations (GS)

Field-normalised: 9,786 Semantic Scholar citations place it in the top 1% of Medicine papers from 2009 indexed by Semantic Scholar, by citation count.

| No. | Citing paper | Citing institution(s) | Country | S2 |
|-----|---|--|----------------------------------|----|
| 1 | 2021 ESC Guidelines on cardiovascular disease prevention in clinical practice (2021) | Academy of Athens, Amsterdam UMC, Amsterdam UMC, Vrije Universiteit | Belgium, France, Germany | — |
| 2 | 2020 ESC Guidelines for the diagnosis and management of atrial fibrillation developed in collaboration with the European Association for Cardio-Thoracic Surgery (EACTS): The Task Force for the diagnosis and management of atrial fibrillation of the European Society of Cardiology (ESC) Developed with the special contribution of the European Heart Rhythm Association (EHRA) of the ESC. (2021) | Attikon University Hospital, National and Kapodistrian University of Athens, Belgrade University, Bern University Hospital | Australia, Belgium, France | — |
| 3 | 2024 ESC Guidelines for the management of atrial fibrillation (2024) | Aalborg University Hospital, Aarhus University Hospital, Acibadem City Clinic Cardiovascular Center | Australia, Belgium, Bulgaria | — |
| 4 | 2020 ACC/AHA Guideline for the Management of Patients With Valvular Heart Disease: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines (2021) | Baylor College of Medicine, Baylor College of Medicine and Michael E. DeBakey VA Medical Center, Baylor Scott & White Health | United States | — |
| 5 | 2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: Executive Summary: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines (2022) | American College of Cardiology/American Heart Association, Baylor College of Medicine, Baylor College of Medicine and Michael E. DeBakey VA Medical Center | United States | — |
| 6 | 2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines (2022) | American College of Cardiology, American College of Cardiology/American Heart Association, American Heart Association | United States | — |
| 7 | 2023 ACC/AHA/ACCP/HRS Guideline for the Diagnosis and Management of Atrial Fibrillation: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines (2023) | American College of Cardiology/American Heart Association, Boston Children's Hospital and Harvard Medical School, Boston University Chobanian & Avedisian School of Medicine and Boston Medical Center | Australia, Turkey, United States | — |

| No. | Citing paper | Citing institution(s) | Country | S2 |
|-----|--|--|----------------------------------|----|
| 8 | 2024 European Heart Rhythm Association/Heart Rhythm Society/Asia Pacific Heart Rhythm Society/Latin American Heart Rhythm Society expert consensus statement on catheter and surgical ablation of atrial fibrillation (2024) | Mitera Hospital, Royal Melbourne Hospital, University of California, San Francisco | Australia, Greece, 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 produced a seminal, highly cited systematic analysis quantifying global disease burden across 195 countries from 1990 to 2017, establishing a critical benchmark for epidemiological research.

The researcher's primary contribution is a comprehensive systematic analysis of global health metrics, specifically the incidence, prevalence, and years lived with disability for 354 diseases and injuries. This work, published in 2018, covers 195 countries and territories over the period 1990–2017, providing a vast, standardized dataset for comparative health assessment.

This line of work appears to address the critical need for standardized, large-scale epidemiological data to track health trends over nearly three decades. By systematically aggregating data for such a wide range of diseases and injuries across a global scope, the research offers a foundational resource that likely filled a significant gap in the availability of comparable, long-term health statistics.

The significance of this contribution is underscored by its extensive uptake in the scientific community, with the core paper accumulating over 24,000 citations. Notably, analysis of citing papers reveals that 100% of the classified citations originate from independent researchers, indicating that this work has become a widely accepted and essential reference point for scholars outside the researcher's immediate network.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 10

CORE PAPER

[Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries and territories, 1990–2017: a systematic ...](#)

2018 · 24,816 citations (GS)

Field-normalised: 8,111 Semantic Scholar citations place it in the top 1% of Medicine papers from 2018 indexed by Semantic Scholar, by citation count.

| No. | Citing paper | Citing institution(s) | Country | S2 |
|-----|---|---|-------------------------|----|
| 1 | Global burden of heart failure: a comprehensive and updated review of epidemiology (2023) | Karolinska Institutet, St George's Hospital Medical School, University Heart and Vascular Centre Hamburg | Germany, Serbia, Sweden | — |
| 2 | 2021 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure (2022) | ASST Spedali Civili di Brescia, ASST Spedali Civili di Brescia and University of Brescia, ASST Spedali Civili di Brescia; University of Brescia | Cyprus, Denmark, France | — |

| No. | Citing paper | Citing institution(s) | Country | S2 |
|-----|---|--|---------------------------------|----|
| 3 | Comparative effectiveness of GLP-1 receptor agonists on glycaemic control, body weight, and lipid profile for type 2 diabetes: systematic review and network meta-analysis (2024) | Beijing University of Chinese Medicine, University of Chicago | China, United States | — |
| 4 | Osteoarthritis: pathogenic signaling pathways and therapeutic targets (2023) | Huazhong University of Science and Technology, Southern University of Science and Technology, SUSTech | China | — |
| 5 | Major depressive disorder: hypothesis, mechanism, prevention and treatment (2024) | Chengdu University of Traditional Chinese Medicine, China Medical University, The First Hospital, China Medical University | China | — |
| 6 | Overcoming barriers to patient adherence: the case for developing innovative drug delivery systems (2023) | Massachusetts Institute of Technology, Rice University | United States | — |
| 7 | Global epidemiology of cirrhosis—etiology, trends and predictions (2023) | Campus Virchow-Klinikum and Campus Charité Universitätsmedizin Berlin, Copenhagen University Hospital Hvidovre, Pontificia Universidad Católica de Chile | Chile, Denmark, Germany | — |
| 8 | Global epidemiology of rheumatoid arthritis (2022) | Colegio Mexicano de Reumatología, Geneva University Hospital (HUG), Hanyang University | Australia, Mexico, South Africa | — |
| 9 | Global, regional, and national prevalence of, and risk factors for, chronic obstructive pulmonary disease (COPD) in 2019: a systematic review and modelling analysis (2022) | The George Institute for Global Health, University of Oxford, University of Edinburgh, University of Oxford | China, United Kingdom | — |
| 10 | Global incidence, prevalence, and mortality of type 1 diabetes in 2021 with projection to 2040: a modelling study (2022) | Baker Heart and Diabetes Institute, Centre Hospitalier de Luxembourg, Centre Hospitalier de Luxembourg; University of Luxembourg | Australia, Canada, Luxembourg | — |

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 Washington | United States | SCImago #45 · THE 25 · QS 81 | 13 |
| Mayo Clinic | United States | SCImago #88 | 8 |

| Institution | Country | World ranking | Citing papers |
|---|----------------|-------------------------------------|---------------|
| Northwestern University | United States | THE 30 · QS =42 | 6 |
| Stanford University | United States | SCImago #18 · THE =5 · QS 3 | 5 |
| Cedars-Sinai Medical Center | United States | SCImago #705 | 5 |
| UT Southwestern Medical Center | United States | — | 5 |
| University of Sydney | Australia | SCImago #93 · THE =53 · QS =25 | 4 |
| Duke University | United States | SCImago #115 · THE 28 · QS 62 | 4 |
| Patient Representative | United States | — | 4 |
| Northwestern University Feinberg School of Medicine | United States | — | 4 |
| Vanderbilt University Medical Center | United States | SCImago #663 | 4 |
| National and Kapodistrian University of Athens | Greece | SCImago #617 · THE 401–500 · QS 390 | 4 |
| Institute for Health Metrics and Evaluation, University of Washington | United States | — | 4 |
| Baylor College of Medicine and Michael E. DeBakey VA Medical Center | United States | — | 4 |
| University of Oxford | United Kingdom | SCImago #26 · THE 1 · QS 4 | 4 |

Geographic distribution of citing authors

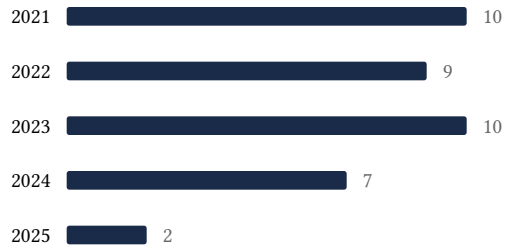
| Country | Citing papers |
|----------------|---------------|
| United States | 29 |
| United Kingdom | 15 |
| Australia | 13 |
| Italy | 12 |
| Germany | 12 |
| Netherlands | 8 |
| Sweden | 7 |
| Canada | 7 |
| Spain | 7 |
| Switzerland | 7 |
| France | 6 |
| China | 6 |

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.

2020 ██████████ 3



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 | Heart Disease and Stroke Statistics—2017 Update: A Report From the American Heart Association | 12 | Dhanasar – Prong 2 (well-positioned) |
| Contribution 2 | Dabigatran versus warfarin in patients with atrial fibrillation | 8 | Dhanasar – Prong 2 (well-positioned) |

| Contribution | Core paper | Indep. cites | Supports |
|---------------------|--|---------------------|--------------------------------------|
| Contribution 3 | Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries and territories, 1990–2017: a systematic ... | 10 | Dhanasar – Prong 2 (well-positioned) |