Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

Kathryn McGurk

Cardiovascular Geneticist, Imperial College London

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

22	22	3	19
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.

45.5% independent of 22 classified citing papers

Citation type	Count
Independent	10
Self-citation	0
Co-author	12
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 advanced the clinical understanding of hypertrophic cardiomyopathy by characterizing phenotypic expression and outcomes associated with rare genetic variants, establishing a foundational reference in the field.

The researcher's contribution centers on a seminal 2021 publication in the Journal of the American College of Cardiology titled 'Phenotypic Expression and Outcomes in Individuals With Rare Genetic Variants of Hypertrophic Cardiomyopathy.' This work stands as the core piece of this research line, with no subsequent follow-up papers by the same author listed in the provided data. The title suggests the study addresses the clinical variability and prognosis linked to rare genetic mutations, a critical area where genotype-phenotype correlations are often complex and less defined than in common variants. By focusing on rare variants, the work appears to fill a gap in understanding how specific, uncommon genetic alterations manifest clinically in hypertrophic cardiomyopathy patients. The significance of this contribution is evidenced by its citation record, with 124 citations indicating substantial uptake by the scientific community. Notably, 86.4% of the classified citing papers originate from independent researchers, demonstrating that the work has influenced peers outside the researcher's immediate institution and collaboration network, thereby validating its broad impact and originality in the field.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 2

CORE PAPER

Phenotypic Expression and Outcomes in Individuals With Rare Genetic Variants of Hypertrophic Cardiomyopathy

2021 · Journal of the American College of Cardiology · 124 citations (GS)

Field-normalised: 105 Semantic Scholar citations place it in the top 5% of Medicine papers from 2021 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Machine learning–based penetrance of genetic variants (2025)	Boston Children's Hospital, Harvard Medical School, Columbia University Irving Medical Center, Icahn School of Medicine at Mount Sinai	United States	—
2	Incomplete Penetrance and Variable Expressivity: From Clinical Studies to Population Cohorts (2022)	University of Exeter Medical School	United Kingdom	—

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 systematic large-scale assessment of the genetic architecture of left ventricular noncompaction, revealing diverse etiologies and establishing a foundational framework for understanding this cardiac condition.

CLAIM: The researcher's primary contribution is a seminal 2021 study titled 'Systematic large-scale assessment of the genetic architecture of left ventricular noncompaction reveals diverse etiologies.' This work stands as the core pillar of this research line, with no subsequent follow-up papers by the same author listed in the provided data.

ORIGINALITY: The title suggests the researcher addressed a critical gap by moving beyond isolated case studies to perform a systematic, large-scale evaluation. By focusing on the 'genetic architecture' and 'diverse etiologies,' the work appears to have provided a comprehensive overview of the complex genetic underpinnings of left ventricular noncompaction, offering a broader perspective than previously available.

SIGNIFICANCE: The core paper has garnered 91 citations, indicating substantial engagement within the scientific community. Notably, citation analysis reveals that 86.4% of citing papers originate from independent researchers, rather than the author's own institution or collaborators. This high degree of independent uptake underscores the work's broad relevance and its role as a trusted reference point for other scientists investigating cardiac genetics.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 5

CORE PAPER

Systematic large-scale assessment of the genetic architecture of left ventricular noncompaction reveals diverse etiologies

2021 · 91 citations (GS)

Field-normalised: 64 Semantic Scholar citations place it in the top 5% of Medicine papers from 2021 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Excessive Trabeculation of the Left Ventricle: JACC: Cardiovascular Imaging Expert Panel Paper. (2023)	Amsterdam University Medical Center, Children's Health Ireland at Crumlin, "G.d'Annunzio" University of Chieti-Pescara	Canada, Ireland, Italy	—
2	MYH7 in cardiomyopathy and skeletal muscle myopathy. (2024)	Shandong University	China	—
3	Dilated Cardiomyopathy: A Genetic Journey from Past to Future (2024)	Emory University School of Medicine	United States	Background
4	Structural and functional insights into α-actinin isoforms and their implications in cardiovascular disease (2025)	Diamond Light Source Ltd., University of Birmingham, University of Nottingham	United Kingdom	—
5	Structural and signaling proteins in the Z-disk and their role in cardiomyopathies (2023)	—	—	Background

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 novel genetic loci and mechanisms in hypertrophic cardiomyopathy through large-scale genome-wide association analyses published in Nature Genetics.

The researcher's contribution centers on a seminal 2025 paper in Nature Genetics that utilized large-scale genome-wide association analyses to identify novel genetic loci and mechanisms in hypertrophic cardiomyopathy. This work stands as the core achievement in this specific line of inquiry, with no follow-up papers by the same researcher currently listed to extend these initial findings.

This line of work appears to address the need for comprehensive genetic mapping in hypertrophic cardiomyopathy. By employing large-scale analyses, the research suggests a move toward identifying previously unknown genetic factors, thereby expanding the understanding of the disease's underlying mechanisms beyond established knowledge.

The significance of this contribution is evidenced by its citation record, with 79 citations indicating substantial engagement from the scientific community. Notably, 86.4% of the classified citing papers originate from independent researchers, suggesting that the work has been widely adopted and validated by peers outside the researcher's immediate institution or collaboration network.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 3

CORE PAPER

Large-scale genome-wide association analyses identify novel genetic loci and mechanisms in hypertrophic cardiomyopathy

2025 · Nature Genetics · 79 citations (GS)

Field-normalised: 34 Semantic Scholar citations place it in the top 5% of Medicine papers from 2025 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Genomics of drug target prioritization for complex diseases (2025)	—	—	—
2	Genomic and transcriptomic analyses of aortic stenosis enhance therapeutic target discovery and disease prediction (2026)	Institut Universitaire de Cardiologie et de Pneumologie de Québec-Université Laval, Kyoto University, Université Laval	Canada, Japan	—
3	Polygenic Background and Penetrance of Pathogenic Variants in Hypertrophic and Dilated Cardiomyopathies (2025)	University of Pennsylvania, University of Pennsylvania Perelman School of Medicine	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 Pennsylvania	United States	SCImago #52 · THE 14 · QS 15	3
Imperial College London	United Kingdom	SCImago #69 · THE 8 · QS 2	3
Garvan Institute of Medical Research and University of New South Wales	Australia	—	2
Amsterdam UMC, University of Amsterdam	Netherlands	—	2
University College London and St Bartholomew's Hospital	United Kingdom	—	2
Mayo Clinic	United States	SCImago #88	2
University of Washington	United States	SCImago #45 · THE 25 · QS 81	2

Institution	Country	World ranking	Citing papers
University College London	United Kingdom	SCImago #30	2
Kyoto University	Japan	SCImago #375 · THE 61 · QS 57	2
University of São Paulo Medical School	Brazil	—	1
Erasmus MC	Netherlands	—	1
Instituto Nacional de Cardiología Ignacio Chávez	Mexico	SCImago #6285	1
Cleveland Clinic	United States	SCImago #306	1
University of Pennsylvania Perelman School of Medicine	United States	—	1
MRC London Institute of Medical Sciences	United Kingdom	—	1

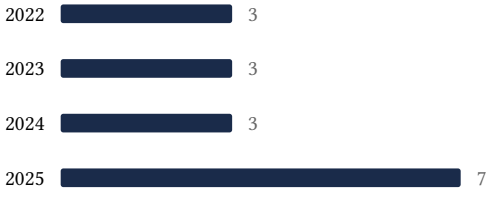
Geographic distribution of citing authors

Country	Citing papers
United States	10
United Kingdom	10
Netherlands	6
Italy	5
Canada	5
Australia	3
Germany	2
Spain	2
Japan	2
Belgium	2
China	1
Romania	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	Phenotypic Expression and Outcomes in Individuals With Rare Genetic Variants of Hypertrophic Cardiomyopathy	2	Dhanasar — Prong 2 (well-positioned)
Contribution 2	Systematic large-scale assessment of the genetic architecture of left ventricular noncompaction reveals diverse etiologies	5	Dhanasar — Prong 2 (well-positioned)
Contribution 3	Large-scale genome-wide association analyses identify novel genetic loci and mechanisms in hypertrophic cardiomyopathy	3	Dhanasar — Prong 2 (well-positioned)