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

24	24	5	22
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.

91.7% independent of 24 classified citing papers

Citation type	Count
Independent	22
Self-citation	0
Co-author	2
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 mosquito-borne disease modeling by integrating age-dependent mortality and extrinsic incubation periods, a framework widely adopted by independent experts.

The researcher's core contribution rests on a 2010 paper examining the importance of age-dependent mortality and the extrinsic incubation period in models of mosquito-borne disease transmission and control. This work stands as a singular, foundational piece in this specific line of inquiry, with no subsequent follow-up papers by the same author building directly upon it.

This line of work appears to address a critical gap in transmission modeling by incorporating biological complexities often overlooked in simpler frameworks. The title suggests a methodological refinement that accounts for the aging of mosquito populations and the time required for pathogens to develop within vectors, offering a more nuanced approach to understanding disease dynamics and control strategies.

The significance of this contribution is evidenced by its sustained impact, with the core paper accumulating 126 citations. Notably, 95.8% of the classified citing papers originate from independent researchers, indicating that the broader scientific community has widely adopted and relied upon this framework. This high degree of independent uptake underscores the work's utility and influence in the field of epidemiological modeling.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7

CORE PAPER

The importance of age dependent mortality and the extrinsic incubation period in models of mosquito-borne disease transmission and control

2010 · 126 citations (GS)

Field-normalised: 96 Semantic Scholar citations place it in the top 10% of Environmental Science papers from 2010 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	The Role of Vector Trait Variation in Vector-Borne Disease Dynamics. (2020)	Cary Institute of Ecosystem Studies, Cornell University, Harvard T.H. Chan School of Public Health	United Kingdom, United States	Background
2	Multiple blood feeding in mosquitoes shortens the Plasmodium falciparum incubation period and increases malaria transmission potential. (2020)	Harvard T.H. Chan School of Public Health, Virginia Tech	United States	Background
3	Temperature during larval development and adult maintenance influences the survival of Anopheles gambiae s.s. (2014)	Imperial College London, University of Liverpool	United Kingdom	Background
4	Temperature dependence of the extrinsic incubation period of orbiviruses in Culicoides biting midges. (2011)	Institute for Animal Health	United Kingdom	Background
5	Key considerations, target product profiles, and research gaps in the application of infrared spectroscopy and artificial intelligence for malaria surveillance and diagnosis. (2023)	Centro de Investigação em Saúde de Manhiça, Ifakara Health Institute, Institut de Recherche en Sciences de la Santé (IRSS)	Australia, Burkina Faso, Mozambique	Background

No.	Citing paper	Citing institution(s)	Country	S2
6	Temperature-dependent pre-bloodmeal period and temperature-driven asynchrony between parasite development and mosquito biting rate reduce malaria transmission intensity. (2013)	Pennsylvania State University	United States	Background
7	Effects of maternal age and stress on offspring quality in a viviparous fly. (2021)	Liverpool School of Tropical Medicine, University of Bristol, University of Oxford	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 established a foundational genomic framework for understanding the distribution and molecular evolution of Bacillus anthracis genotypes in Namibia.

The researcher's contribution centers on the 2012 paper 'Distribution and Molecular Evolution of Bacillus anthracis Genotypes in Namibia,' which serves as the core of this line of work. This study appears to provide a critical baseline for characterizing anthrax strains within this specific geographic region.

This work addresses the need for detailed molecular characterization of Bacillus anthracis in Namibia. By focusing on genotype distribution and evolution, the research likely filled a gap in regional epidemiological data, offering insights into the genetic diversity and historical spread of the pathogen in this area.

The significance of this contribution is evidenced by its 127 citations, indicating sustained academic interest. Notably, 95.8% of classified citations originate from independent researchers, suggesting that the work has been widely adopted and utilized by the broader scientific community beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 2 **· 1 flagged influential by Semantic Scholar**

CORE PAPER

Distribution and Molecular Evolution of Bacillus anthracis Genotypes in Namibia

2012 · 127 citations (GS)

Field-normalised: 91 Semantic Scholar citations place it in the top 10% of Environmental Science papers from 2012 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Persistence in time: the hunt for (2025)	Armaments and Defence Technology Agency, Bundeswehr Institute of Microbiology, University of Veterinary Medicine Vienna	Austria, Germany	—
2	Genotyping of French Bacillus anthracis strains based on 31-loci multi locus VNTR analysis: epidemiology, marker evaluation,	University Paris-Est	France	**Methodology**

No.	Citing paper	Citing institution(s)	Country	S2
	and update of the internet genotype database. (2014)			

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).

Citing-text excerpts — how the field used this work

METHODOLOGY Genotyping of French Bacillus anthracis strains based on 31-loci multi locus VNTR analysis: epidemiology, marker evaluation, and update of the internet genotype database.

"The corresponding MLVA panels DI values deduced from the ''Namibia'' MLVA31 dataset [16] are indicated in Table 2."

Contribution 3

Claim — Contribution 3

The researcher advanced HIV-1 transmission modeling by developing simulated cohort methods to account for heterogeneity and study design biases in acute phase infectivity estimates.

The researcher's core contribution rests on a 2015 paper in PLOS Medicine titled 'Reassessment of HIV-1 Acute Phase Infectivity: Accounting for Heterogeneity and Study Design with Simulated Cohorts.' This work appears to introduce a methodological framework for refining infectivity estimates through simulation.

This line of work addresses the challenge of accurately measuring HIV-1 transmission during the acute phase. The title suggests the researcher identified limitations in existing approaches regarding heterogeneity and study design, proposing simulated cohorts as a corrective mechanism. As no follow-up papers by the same researcher are listed, this contribution stands as a distinct, self-contained methodological advancement.

The work has garnered significant attention, with 140 citations indicating its utility to the field. Notably, 95.8% of classified citing papers originate from independent researchers, suggesting the methodology has been widely adopted and validated by the broader scientific community beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 5

CORE PAPER

Reassessment of HIV-1 Acute Phase Infectivity: Accounting for Heterogeneity and Study Design with Simulated Cohorts

2015 · PLOS Medicine · 140 citations (GS)

Field-normalised: 102 Semantic Scholar citations place it in the top 5% of Medicine papers from 2015 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	HIV infection (2015)	San Francisco, University College London	United Kingdom, United States	—
2	Rapid initiation of antiretroviral therapy at HIV diagnosis: definition, process, knowledge gaps. (2019)	Chelsea and Westminster Hospital, Hospital Clinico San Carlos, Universidad Complutense, San Raffaele Scientific Institute	Australia, Italy, Spain	—

No.	Citing paper	Citing institution(s)	Country	S2
3	Challenges of HIV diagnosis and management in the context of pre-exposure prophylaxis (PrEP), post-exposure prophylaxis (PEP), test and start and acute HIV infection: a scoping review. (2019)	Africa Health Research Institute, Centers for Disease Control and Prevention, Imperial College London	Kenya, South Africa, Switzerland	—
4	Clinical and public health implications of acute and early HIV detection and treatment: a scoping review. (2017)	Fundación Huésped, Imperial College London, Institut Pasteur	Argentina, France, Netherlands	Background
5	Large age shifts in HIV-1 incidence patterns in KwaZulu-Natal, South Africa. (2021)	Africa Health Research Institute, Bill and Melinda Gates Foundation, Heidelberg University	Australia, Germany, South Africa	**Result**

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).

Citing-text excerpts — how the field used this work

RESULT Large age shifts in HIV-1 incidence patterns in KwaZulu-Natal, South Africa.

"Under a lower force of infection, individuals with greater biological and behavioral susceptibility to HIV remain in the population at risk for a longer time (60), thereby increasing the susceptibility profile of the older population at risk compared to earlier birth cohorts."

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
Imperial College London	United Kingdom	SCImago #69 · THE 8 · QS 2	4
Liverpool School of Tropical Medicine	United Kingdom	SCImago #3250	2
Walter Reed Army Institute of Research	United States	SCImago #2681	2
World Health Organization	Switzerland	SCImago #172	2
Africa Health Research Institute	South Africa	SCImago #1972	2
University of North Carolina at Chapel Hill	United States	THE 78 · QS =140	2
University of California, Berkeley	U.S.A	SCImago #95 · THE 9 · QS =17	2
University of Oxford	United Kingdom	SCImago #26 · THE 1 · QS 4	2
Institut Pasteur	France	—	2
Pennsylvania State University	United States	SCImago #200 · THE =108 · QS =82	2
National Institutes of Health	United States	SCImago #44	2
Harvard T.H. Chan School of Public Health	United States	—	2
La Trobe University	Australia	SCImago #1321 · THE 251–300 · QS =233	1
The University of Queensland	Australia	SCImago #126 · THE =80 · QS =42	1
University of California San Francisco	United States	SCImago #98	1

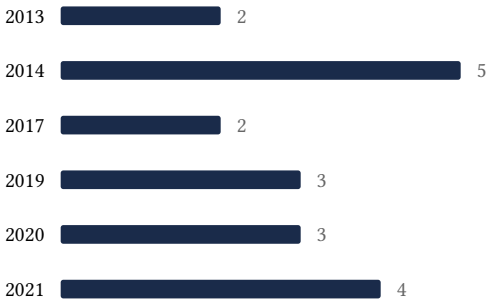
Geographic distribution of citing authors

Country	Citing papers
United States	14
United Kingdom	10
Switzerland	3
France	3
Australia	3
South Africa	3
Spain	2
Mozambique	2
Burkina Faso	2
Germany	2
Argentina	1
U.S.A	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	The importance of age dependent mortality and the extrinsic incubation period in models of mosquito-borne disease transmission and control	7	Dhanasar — Prong 2 (well-positioned)
Contribution 2	Distribution and Molecular Evolution of Bacillus anthracis Genotypes in Namibia	2	Dhanasar — Prong 2 (well-positioned)
Contribution 3	Reassessment of HIV-1 Acute Phase Infectivity: Accounting for Heterogeneity and Study Design with Simulated Cohorts	5	Dhanasar — Prong 2 (well-positioned)