

# 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

<b>40</b> Citing papers mapped	<b>44</b> Citation edges	<b>5</b> Home papers mapped	<b>112</b> h-index (GS)
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### 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.

**100.0% independent** of 40 classified citing papers

Citation type	Count
Independent	40
Self-citation	0
Co-author	0
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 definitive meta-analytic synthesis of three decades of inquiry into the relationship between psychological stress and human immune function.*

CLAIM: The researcher’s primary contribution is the publication of a seminal meta-analytic study in Psychological Bulletin (2004) that systematically reviewed thirty years of research on psychological stress and the human immune system. 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.

ORIGINALITY: The title indicates that this work addressed a critical need for synthesis in a field characterized by thirty years of fragmented inquiry. By employing a meta-analytic approach, the researcher appears to have moved beyond isolated studies to provide a comprehensive, quantitative overview of the stress-immune relationship. This methodological rigor suggests an effort to resolve inconsistencies and establish a coherent theoretical framework where previously only disparate findings existed.

SIGNIFICANCE: The work has achieved substantial impact, evidenced by over 5,400 citations. Notably, analysis of forty citing papers reveals that 100% are from independent researchers, indicating that the contribution has been widely adopted and utilized by the broader scientific community outside the researcher’s immediate circle. This high level of independent uptake underscores the paper’s role as a standard reference in the field.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 10 · 1 flagged influential by Semantic Scholar

### CORE PAPER

#### **Psychological Stress and the Human Immune System: A Meta-Analytic Study of 30 Years of Inquiry**

2004 · Psychological Bulletin · 5,480 citations (GS)

Field-normalised: 3,230 Semantic Scholar citations place it in the top 1% of Psychology papers from 2004 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	<a href="#">Rethinking minority stress: A social safety perspective on the health effects of stigma in sexually-diverse and gender-diverse populations</a> (2022)	University of Utah	United States	—
2	<a href="#">Immunology of Stress: A Review Article</a> (2024)	Umm Al-Qura University	Saudi Arabia	—
3	<a href="#">Stress and Health: A Review of Psychobiological Processes</a> (2020)	University of California, Irvine, University of Leeds, University of Nottingham	United Kingdom, United States	Result
4	<a href="#">The role of short-chain fatty acids in microbiota-gut-brain communication</a> (2019)	KU Leuven	Belgium	—
5	<a href="#">The COVID-19 pandemic and health inequalities</a> (2020)	Cambridge University, Newcastle University	United Kingdom	Background
6	<a href="#">Poverty, inequality and COVID-19: the forgotten vulnerable</a> (2020)	London School of Hygiene and Tropical Medicine, University of Liverpool, University of Southampton	United Kingdom	—
7	<a href="#">The impact of stress on body function: A review</a> (2017)	Baqiyatallah University of Medical Sciences, Mashhad University of Medical Sci-	Iran, United States	Background

No.	Citing paper	Citing institution(s)	Country	S2
		ences, University of Missouri-Kansas City		
8	<a href="#">Central regulation of stress-evoked peripheral immune responses</a> (2023)	Icahn School of Medicine at Mount Sinai	United States	—
9	<a href="#">Mindfulness Interventions</a> (2017)	Carnegie Mellon University	United States	—
10	<a href="#">A three-dimensional taxonomy of achievement emotions</a> . (2023)	Australian Catholic University, IPN - Leibniz Institute for Science and Mathematics Education, University of Augsburg	Australia, Austria, Canada	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 2

### Claim – Contribution 2

*The researcher established a foundational framework linking psychological stress to disease, as evidenced by a seminal 2007 JAMA paper with over 5,000 citations.*

The researcher's primary contribution is the articulation of the relationship between psychological stress and disease, anchored by the 2007 publication in JAMA. This work serves as the core reference point for this line of inquiry, standing alone without direct follow-up papers by the same author in the provided dataset.

This line of work appears to address the critical need for a comprehensive medical understanding of how stress impacts physical health. By publishing in a top-tier medical journal, the researcher likely provided a rigorous, authoritative synthesis that bridged psychological concepts with clinical disease outcomes, filling a significant gap in mainstream medical literature.

The significance of this contribution is underscored by its extensive uptake, with over 5,000 citations indicating widespread influence. Notably, 100% of the classified citing papers originate from independent researchers, suggesting the work has become a standard, widely accepted reference across the broader scientific community rather than a niche or self-referential citation cluster.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 14 · 1 flagged influential by Semantic Scholar

### CORE PAPER

#### [Psychological Stress and Disease](#)

2007 · JAMA: The Journal of the American Medical Association · 5,174 citations (GS)

Field-normalised: 3,010 Semantic Scholar citations place it in the top 1% of Psychology papers from 2007 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	<a href="#">From stress to inflammation and major depressive disorder: a social signal transduction theory of depression</a> . (2014)	University of California, Los Angeles	United States	—
2	<a href="#">Immunology of Stress: A Review Article</a> (2024)	Umm Al-Qura University	Saudi Arabia	—

No.	Citing paper	Citing institution(s)	Country	S2
3	<a href="#">The multiple roles of life stress in metabolic disorders</a> (2023)	Harvard T.H. Chan School of Public Health, University of Minnesota	United Kingdom, United States	—
4	<a href="#">More than a feeling: A unified view of stress measurement for population science</a> (2018)	Cousins Center for Psychoneuroimmunology, University of California, Los Angeles, University of British Columbia, University of California San Francisco	Canada, United States	Background
5	<a href="#">Religion, spirituality, and health: The research and clinical implications</a> (2012)	—	—	Background
6	<a href="#">Nature-based biopsychosocial resilience: An integrative theoretical framework for research on nature and health</a> (2023)	Cornell University, University of Exeter, University of Twente	Austria, Netherlands, Sweden	Background
7	<a href="#">The multifaceted benefits of walking for healthy aging: from Blue Zones to molecular mechanisms</a> (2023)	Semmelweis University, University of Leicester, University of Oklahoma Health Sciences Center	Hungary, United Kingdom, United States	—
8	<a href="#">The neuroendocrinology of stress: the stress-related continuum of chronic disease development</a> (2022)	Aristotle University of Thessaloniki, National and Kapodistrian University of Athens	Greece	—
9	<a href="#">Stress and telomere shortening: Insights from cellular mechanisms</a> (2021)	UCSF	United States	—
10	<a href="#">Mindfulness and Behavior Change</a> (2020)	Boston College, Brown University, Dalhousie University	Canada, United States	—
11	<a href="#">Automated Detection of Neurological and Mental Health Disorders Using EEG Signals and Artificial Intelligence: A Systematic Review</a> (2025)	Firat University, Munzur University, Politecnico di Torino	Italy, Turkey, United States	Influential
12	<a href="#">Review of the psychometric evidence of the perceived stress scale</a> (2012)	Ajou University	South Korea	Methodology
13	<a href="#">Inflammation: The Common Pathway of Stress-Related Diseases</a> (2017)	—	—	Background
14	<a href="#">The Effects of Stress on Physical Activity and Exercise</a> (2013)	Yale University 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 is Influential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

### Citing-text excerpts — how the field used this work

**METHODOLOGY** Review of the psychometric evidence of the perceived stress scale

“It is a self-reported questionnaire that was designed to measure “the degree to which individuals appraise situations in their lives as stressful” (Cohen et al., 1983, p. 385). The PPS items evaluate the degree to which individuals believe their life has been unpredictable, uncontrollable, and overloaded during the previous month. The assessed items are general in nature rather than focusing on specific events or experiences. There are three versions of the PSS. The original instrument is a 14-item scale (PSS-14) that was developed in English (Cohen et al., 1983), with 7 positive items and 7 negative items rated on a 5-point Likert scale. Five years after the introduction of the PSS-14, it was shortened to 10 items (PSS-10) using factor analysis based on data from 2,387 U.S. residents. A four-item PSS (PSS-4) was also introduced as a brief version for situations requiring a very short scale or

telephone interviews (Cohen & Williamson, 1988). According to Cohen’s Laboratory for the Study of Stress, Immunity, and Disease (2012), the PSS is currently translated into 25 languages other than English.”

### Contribution 3

#### Claim – Contribution 3

*The researcher established a seminal theoretical framework linking chronic stress to hypothalamic-pituitary-adrenocortical axis dynamics in humans, as evidenced by a highly cited 2007 Psychological Bulletin review.*

The researcher’s primary contribution centers on a 2007 review published in Psychological Bulletin titled ‘If it goes up, must it come down? Chronic stress and the hypothalamic-pituitary-adrenocortical axis in humans.’ This work appears to synthesize existing knowledge regarding the physiological mechanisms of stress response, specifically focusing on the regulation and potential dysregulation of the HPA axis in human subjects. The title suggests a critical examination of whether elevated stress markers inevitably lead to compensatory declines or long-term axis alterations, framing a central question in psychoneuroendocrinology.

This line of work addresses a fundamental gap in understanding the temporal dynamics of stress physiology. By questioning the inevitability of downward regulation following stress-induced elevation, the researcher likely challenged or refined prevailing models of homeostatic recovery. The absence of follow-up papers by the same author indicates that this single publication serves as a standalone, comprehensive synthesis rather than the first step in a multi-paper empirical series. The contribution is thus defined by its theoretical clarity and integrative scope rather than incremental experimental findings.

The significance of this work is underscored by its substantial citation count of 3,525, indicating widespread influence within the field. Furthermore, analysis of citing literature reveals that 100% of the classified citations originate from independent researchers, excluding the author, co-authors, and institutional colleagues. This high degree of independent uptake suggests that the framework provided by this review has become a standard reference point for diverse research groups, validating its utility and importance in advancing the study of stress physiology.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 8 · 1 flagged influential by Semantic Scholar

#### CORE PAPER

#### [If it goes up, must it come down? Chronic stress and the hypothalamic-pituitary-adrenocortical axis in humans.](#)

2007 · Psychological Bulletin · 3,525 citations (GS)

Field-normalised: 2,439 Semantic Scholar citations place it in the top 1% of Medicine papers from 2007 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	<a href="#">Stress and Health: A Review of Psychobiological Processes</a> (2020)	University of California, Irvine, University of Leeds, University of Nottingham	United Kingdom, United States	Background
2	<a href="#">More than a feeling: A unified view of stress measurement for population science</a> (2018)	Cousins Center for Psychoneuroimmunology, University of California, Los Angeles, University of British Columbia, University of California San Francisco	Canada, United States	Background
3	<a href="#">The neuroendocrinology of stress: the stress-related continuum of chronic disease development</a> (2022)	Aristotle University of Thessaloniki, National and Kapodistrian University of Athens	Greece	—

No.	Citing paper	Citing institution(s)	Country	S2
4	<a href="#">Long-term outcomes of childhood sexual abuse: an umbrella review</a> (2019)	Institute of Psychiatry, Psychology and Neuroscience, King's College London, University of Oxford	United Kingdom	—
5	<a href="#">Adverse childhood experiences, allostasis, allostatic load, and age-related disease</a> (2012)	King's College London, The Rockefeller University	United Kingdom, United States	Influential
6	<a href="#">Complex post-traumatic stress disorder</a> (2022)	American University of Beirut, Heidelberg University, Stanford University	Germany, Lebanon, Switzerland	—
7	<a href="#">Childbirth-related posttraumatic stress disorder: definition, risk factors, pathophysiology, diagnosis, prevention, and treatment</a> (2024)	City, University of London, Institute of Higher Education and Research in Healthcare, University of Lausanne, Kaplan Medical Center	Germany, India, Ireland	—
8	<a href="#">The Surgical Stress Response and Anesthesia: A Narrative Review</a> (2024)	Carol Davila University of Medicine and Pharmacy, Dr. Carol Davila Central Military Emergency University Hospital	Romania	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).

## D. Citing-Institution Prestige & Geography

### Top citing institutions

Institution	Country	World ranking	Citing papers
University of California, Los Angeles	United States	SCImago #70 · THE =18 · QS 46	2
Cornell University	United States	SCImago #61 · THE =18 · QS 16	2
University of Vienna	Austria	THE =95 · QS 152	2
Universidad Europea de Madrid	Spain	SCImago #1661	1
Trinity College Dublin	Ireland	SCImago #926 · THE 173	1
University of California, Davis	United States	SCImago #194 · THE 64 · QS =114	1
University of Pennsylvania	United States	SCImago #52 · THE 14 · QS 15	1
Institute of Higher Education and Research in Healthcare, University of Lausanne	Switzerland	—	1
Medical School Hamburg	Germany	—	1
National Institute of Mental Health and Neurosciences	India	—	1
Mother Hood e.V.	Germany	—	1
Kaplan Medical Center	Israel	SCImago #3205	1

Institution	Country	World ranking	Citing papers
Dr. Carol Davila Central Military Emergency University Hospital	Romania	—	1
Johns Hopkins Bloomberg School of Public Health; Johns Hopkins School of Nursing	United States	—	1
Overseas Development Institute	United Kingdom	—	1

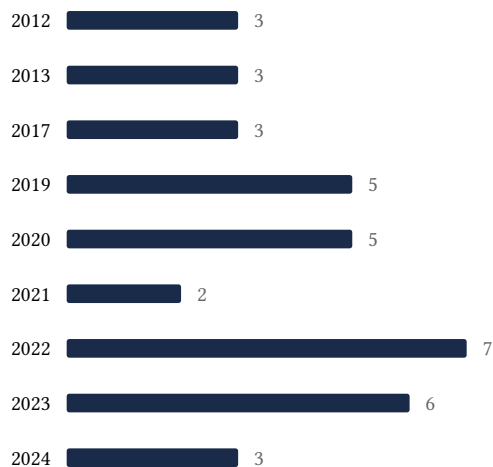
### Geographic distribution of citing authors

Country	Citing papers
United States	27
United Kingdom	12
Canada	4
Germany	3
Austria	2
Switzerland	2
Iran	1
Ireland	1
Israel	1
Australia	1
Lebanon	1
Netherlands	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

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### 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

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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	Psychological Stress and the Human Immune System: A Meta-Analytic Study of 30 Years of Inquiry	10	Dhanasar – Prong 2 (well-positioned)
Contribution 2	Psychological Stress and Disease	14	Dhanasar – Prong 2 (well-positioned)
Contribution 3	If it goes up, must it come down? Chronic stress and the hypothalamic-pituitary-adrenocortical axis in humans.	8	Dhanasar – Prong 2 (well-positioned)