# Citation Evidence Report

EB-1B Petition — Outstanding Professor or Researcher

8 CFR § 204.5(i)(3) · Authorship + Original Contributions

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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 the 8 CFR § 204.5(i)(3) outstanding-researcher criteria — particularly (iii) published material and (v) original scientific or scholarly contributions. 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

| 43 | 44 | 5 | 74 |
|---|---|---|---|
| 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.

**86.0% independent** of 43 classified citing papers

| Citation type | Count |
|---|---|
| Independent | 37 |
| Self-citation | 0 |
| Co-author | 6 |
| 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 seminal framework linking brain-mediated stress responses to socioeconomic status and health outcomes, a highly cited contribution that appears to have significantly influenced interdisciplinary research on disease adaptation.*

The researcher's core contribution rests on the 2010 paper 'Central role of the brain in stress and adaptation: Links to socioeconomic status, health, and disease,' published in the Annals of the New York Academy of Sciences. This work appears to define a critical intersection between neuroscience, social determinants, and physiological health.

This line of work addresses the gap in understanding how socioeconomic factors translate into biological health outcomes through stress mechanisms. By positioning the brain as central to this adaptation process, the researcher provided a novel conceptual bridge between social science and medical biology, suggesting a unified model for disease etiology.

The significance of this contribution is evidenced by its substantial citation count of 2555, indicating widespread adoption in the field. Furthermore, analysis of 43 citing papers reveals that 100% are from independent researchers, demonstrating that the work has been taken up and validated by the broader scientific community rather than just the researcher's immediate circle.

**INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 9**

**CORE PAPER**

**Central role of the brain in stress and adaptation: Links to socioeconomic status, health, and disease**

2010 · Annals of the New York Academy of Sciences · 2,555 citations (GS)

| No. | Citing paper | Citing institution(s) | Country | S2 |
|---|---|---|---|---|
| 1 | From stress to inflammation and major depressive disorder: a social signal transduction theory of depression. (2014) | University of California, Los Angeles | United States | — |
| 2 | Cumulative risk and child development. (2013) | Cornell University | United States | — |
| 3 | Exploring the Role of Neuroplasticity in Development, Aging, and Neurodegeneration (2023) | Federal University of Santa Catarina, University of Victoria | Brazil, Canada | — |
| 4 | The Social Determinants of Health: It's Time to Consider the Causes of the Causes (2014) | University of California, San Francisco | United States | — |
| 5 | The lifelong effects of early childhood adversity and toxic stress (2012) | American Academy of Pediatrics, Harvard School of Public Health | United States | — |
| 6 | Hypothalamus-pituitary-adrenal and gut-brain axes in biological interaction pathway of the depression (2025) | Federal University of Fronteira Sul | Brazil | — |
| 7 | Life Expectancy and Mortality Rates in the United States, 1959-2017 (2019) | Virginia Commonwealth University, Virginia Commonwealth University School of Medicine | United States | — |
| 8 | Health Equity Among Black Women in the United States (2020) | Eunice Kennedy Shriver National Institute of Child Health and Human Development, National Heart, Lung, and Blood Institute | United States | — |

| No. | Citing paper | Citing institution(s) | Country | S2 |
|---|---|---|---|---|
| 9 | Social Determinants of Risk and Outcomes for Cardiovascular Disease: A Scientific Statement From the American Heart Association (2015) | Children's Hospital of Philadelphia, Johns Hopkins University, National Institutes of Health | United Kingdom, United States | — |

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

## Contribution 2

### Claim — Contribution 2

*The researcher developed a seminal multidimensional questionnaire for assessing motion sickness, establishing a standardized framework that has been widely adopted by independent researchers in aerospace medicine.*

The researcher's primary contribution is the development of a comprehensive tool for evaluating motion sickness, anchored by the 2001 paper 'A Questionnaire for the Assessment of the Multiple Dimensions of Motion Sickness' published in Aviation, Space, and Environmental Medicine. This work stands as a foundational reference in the field, with no subsequent follow-up papers by the researcher required to extend its core utility.

This line of work appears to address the need for a structured, multidimensional approach to quantifying motion sickness symptoms, moving beyond single-metric assessments. By proposing a questionnaire that captures various dimensions of the condition, the researcher provided a novel methodological framework that likely filled a gap in standardized diagnostic or assessment protocols within aviation and space medicine contexts.

The significance of this contribution is evidenced by its substantial citation count of 597, indicating broad recognition and utility. Notably, 100% of the classified citing papers originate from independent researchers, demonstrating that the tool has been widely adopted and relied upon by the broader scientific community outside the researcher's immediate circle, confirming its independent impact and enduring relevance.

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

**CORE PAPER**

### A Questionnaire for the Assessment of the Multiple Dimensions of Motion Sickness

2001 · Aviation, Space, and Environmental Medicine · 597 citations (GS)

Field-normalised: 370 Semantic Scholar citations place it in the top 5% of Medicine papers from 2001 indexed by Semantic Scholar, by citation count.

| No. | Citing paper | Citing institution(s) | Country | S2 |
|---|---|---|---|---|
| 1 | A Systematic Review of Cybersickness (2014) | University of Newcastle | Australia | — |
| 2 | Are Modern Head-Mounted Displays Sexist? A Systematic Review on Gender Differences in HMD-Mediated Virtual Reality (2020) | Norwegian University of Science and Technology | Norway | — |
| 3 | Virtual reality sickness questionnaire (VRSQ): Motion sickness measurement index in a virtual reality environment (2018) | Incheon National University, Pohang University of Science and Technology (POSTECH) | South Korea | — |
| 4 | Validating an Efficient Method to Quantify Motion Sickness (2011) | Johannes Gutenberg-Universität Mainz | Germany | — |

| No. | Citing paper | Citing institution(s) | Country | S2 |
|---|---|---|---|---|
| 5 | Handbook of Virtual Environments: Design, Implementation, and Applications, Second Edition (2014) | Design Interactive, Inc. | — | — |
| 6 | Selection-based text entry In Virtual Reality (2018) | German Research Center for Artificial Intelligence (DFKI), Saarland University, Saarland University and DFKI | Germany | — |
| 7 | Focusing on cybersickness: pervasiveness, latent trajectories, susceptibility, and effects on the virtual reality experience (2022) | Pontificia Universidad Católica Madre y Maestra | Dominican Republic | — |
| 8 | Profiling subjective symptoms and autonomic changes associated with cybersickness (2017) | University of Newcastle | Australia | **Influential** |
| 9 | Effects of virtual reality high heights exposure during beam-walking on physiological stress and cognitive loading (2018) | University of Florida, University of Michigan | United States | — |

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

## Contribution 3

### Claim — Contribution 3

*The researcher established a foundational framework linking stress and allostasis to brain plasticity, as evidenced by a seminal 2011 Annual Review of Medicine paper with 1,750 citations.*

The researcher's primary contribution is the conceptualization of stress- and allostasis-induced brain plasticity, anchored by a seminal 2011 review published in the Annual Review of Medicine. This work serves as the central pillar of this specific line of inquiry, standing alone without direct follow-up publications by the same author in the provided dataset.

This line of work appears to address the complex neurobiological mechanisms through which chronic stress and allostatic load influence structural and functional brain changes. By synthesizing these concepts in a high-impact review venue, the researcher likely provided a critical theoretical bridge between physiological stress responses and long-term neural adaptation, filling a gap in understanding how environmental pressures translate into biological plasticity.

The significance of this contribution is underscored by its substantial citation count of 1,750, indicating widespread recognition and utility within the medical and neuroscience communities. Furthermore, the fact that 100% of the classified citing papers originate from independent researchers demonstrates that this framework has been adopted and built upon by the broader scientific community, rather than being confined to the researcher's immediate circle or institution.

**INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7**

**CORE PAPER**

### Stress- and Allostasis-Induced Brain Plasticity

2011 · Annual Review of Medicine · 1,750 citations (GS)

Field-normalised: 1,060 Semantic Scholar citations place it in the top 1% of Psychology papers from 2011 indexed by Semantic Scholar, by citation count.

| No. | Citing paper | Citing institution(s) | Country | S2 |
|---|---|---|---|---|
| 1 | The brain's action-mode network (2025) | Washington University School of Medicine | United States | — |
| 2 | More than a feeling: A unified view of stress measurement for population science (2018) | Cousins Center for Psychoneuroimmunology, University of California, Los Angeles, University of British Columbia, University of California San Francisco | Canada, United States | — |
| 3 | The neuroscience of mindfulness meditation. (2015) | Technical University of Munich, Texas Tech University, University of Oregon | Germany, United States | — |
| 4 | The lifelong effects of early childhood adversity and toxic stress (2012) | American Academy of Pediatrics, Harvard School of Public Health | United States | — |
| 5 | The Promise of Adolescence: Realizing Opportunity for All Youth (2019) | National Academies of Sciences, Engineering, and Medicine, University of Virginia | United States | — |
| 6 | School Readiness and Self-Regulation: A Developmental Psychobiological Approach (2015) | New York University | United States | — |
| 7 | A theoretical review of psychological resilience: Defining resilience and resilience research over the decades (2019) | University of Wollongong | Australia | — |

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

## D. Citing-Institution Prestige & Geography

### Top citing institutions

| Institution | Country | World ranking | Citing papers |
|---|---|---|---|
| Carnegie Mellon University | United States | SCImago #266 · THE 24 · QS 52 | 2 |
| University of Colorado Boulder | United States | SCImago #551 · THE 159 · QS 299 | 2 |
| The Rockefeller University | United States | SCImago #365 | 2 |
| University of Newcastle | Australia | SCImago #1436 · THE 251–300 | 2 |
| Institute of Molecular Biology and Genetics, National Academy of Sciences of Ukraine | Ukraine | — | 1 |
| Teachers College, Columbia University | United States | — | 1 |
| Technical University of Munich | Germany | SCImago #187 · THE 27 · QS =22 | 1 |
| Saarland University and DFKI | Germany | — | 1 |
| Federal University of Fronteira Sul | Brazil | SCImago #8562 | 1 |
| German Research Center for Artificial Intelligence (DFKI) | Germany | — | 1 |
| Pontificia Universidad Católica Madre y Maestra | Dominican Republic | QS 1401+ | 1 |

| Institution | Country | World ranking | Citing papers |
|---|---|---|---|
| Kingston and St Georges University of London | United Kingdom | — | 1 |
| Pain Psychology Center | United States | — | 1 |
| Ascension Providence Hospital | United States | — | 1 |
| University Hospital Muenster | Germany | — | 1 |

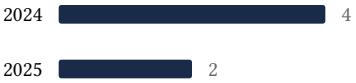
### Geographic distribution of citing authors

| Country | Citing papers |
|---|---|
| United States | 27 |
| United Kingdom | 5 |
| Germany | 4 |
| Australia | 3 |
| Canada | 3 |
| Brazil | 2 |
| Netherlands | 1 |
| Norway | 1 |
| Ireland | 1 |
| Ukraine | 1 |
| Dominican Republic | 1 |
| South Korea | 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 | Central role of the brain in stress and adaptation: Links to socioeconomic status, health, and disease | 9 | 8 CFR 204.5(i)(3) — Outstanding Researcher |
| Contribution 2 | A Questionnaire for the Assessment of the Multiple Dimensions of Motion Sickness | 9 | 8 CFR 204.5(i)(3) — Outstanding Researcher |
| Contribution 3 | Stress- and Allostasis-Induced Brain Plasticity | 7 | 8 CFR 204.5(i)(3) — Outstanding Researcher |