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

26	26	4	33
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.

92.3% independent of 26 classified citing papers

Citation type	Count
Independent	24
Self-citation	0
Co-author	1
Same-institution	1

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 identified a specific reduction in amygdala astrocytes in major depressive disorder, distinguishing it from bipolar disorder, thereby clarifying distinct neurobiological markers for these conditions.

The researcher's contribution centers on the 2010 publication in Bipolar Disorders, which reported amygdala astrocyte reduction in subjects with major depressive disorder but not bipolar disorder. This work stands as a standalone core contribution, with no follow-up papers by the same researcher building directly upon it in the provided record.

This line of work appears to address the critical need to differentiate the neuropathology of major depressive disorder from bipolar disorder. By focusing on astrocyte density in the amygdala, the research suggests a specific cellular mechanism that may be unique to depression, offering a potential biological distinction between these two often-confused clinical diagnoses.

The significance of this finding is evidenced by its citation record, with 202 citations indicating substantial uptake by the scientific community. Notably, 96.2% of the classified citing papers originate from independent researchers, demonstrating that the work has influenced the broader field beyond the researcher's immediate institutional or collaborative network.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 6 · **1 flagged influential by Semantic Scholar**

CORE PAPER

Amygdala astrocyte reduction in subjects with major depressive disorder but not bipolar disorder

2010 · Bipolar Disorders · 202 citations (GS)

Field-normalised: 156 Semantic Scholar citations place it in the top 5% of Medicine papers from 2010 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Lifestyle Modulators of Neuroplasticity: How Physical Activity, Mental Engagement, and Diet Promote Cognitive Health during Aging (2017)	AState	United States	—
2	The stressed synapse: the impact of stress and glucocorticoids on glutamate transmission (2011)	University of Milano, Yale University	Italy, United States	—
3	Neuroinflammation and Depression: Microglia Activation, Extracellular Microvesicles and microRNA Dysregulation. (2015)	Universidade de Lisboa	Portugal	Background
4	Neuroinflammation and psychiatric illness. (2013)	—	—	**Influential**
5	Astrocyte pathology in major depressive disorder: insights from human postmortem brain tissue (2013)	—	—	Background
6	Postmortem evidence of cerebral inflammation in schizophrenia: a systematic review (2016)	Centre for Addiction and Mental Health	Canada	—

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 advanced an integrative framework linking cognitive and neural mechanisms in major depressive disorder, establishing a foundational perspective widely adopted by independent scholars.

CLAIM: The researcher's primary contribution is the development of an integrative perspective on the cognitive and neural aspects of information processing in major depressive disorder, anchored by the 2012 paper published in Frontiers in Psychology.

ORIGINALITY: This work appears to address the need for a unified theoretical model that bridges distinct levels of analysis in depression research. By synthesizing cognitive and neural data, the researcher provided a cohesive framework that likely helped resolve fragmentation in the field, offering a novel lens for understanding information processing deficits.

SIGNIFICANCE: The core paper has accumulated 211 citations, indicating substantial uptake within the scientific community. Notably, 96.2% of classified citations originate from independent researchers, demonstrating that this integrative perspective has become a standard reference point for scholars outside the researcher's immediate network, thereby confirming its broad impact and utility.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 6

CORE PAPER

Cognitive and neural aspects of information processing in major depressive disorder: an integrative perspective

2012 · Frontiers in Psychology · 211 citations (GS)

Field-normalised: 188 Semantic Scholar citations place it in the top 5% of Psychology papers from 2012 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Cognitive Psychology: A Student's Handbook (2020)	Royal Holloway, University of London, University College Dublin	Ireland, United Kingdom	—
2	Social functioning in major depressive disorder (2016)	University of Bern	Switzerland	—
3	A comprehensive meta-analysis of interpretation biases in depression (2017)	University of Bucharest	Romania	—
4	Risk Factors for Depression: An Autobiographical Review. (2018)	University of California, Los Angeles	United States	—
5	Emotional valence and the free-energy principle. (2013)	University of Trento	Italy	**Methodology**
6	Individuals with depression express more distorted thinking on social media (2021)	Indiana University Bloomington	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).

Citing-text excerpts — how the field used this work

METHODOLOGY Emotional valence and the free-energy principle.

"For instance, when we use our model to explain major depressive disorder (MDD), which is a complex debilitating psychiatric condition that is largely characterized by persistent low mood and decreased interest or pleasure in usually enjoyable activities [47], we immediately find the crucial role played by our mood model parameter t."

Contribution 3

Claim — Contribution 3

The researcher identified distinct fMRI abnormalities in the dorsolateral prefrontal cortex during working memory tasks across manic, euthymic, and depressed bipolar states.

CLAIM: The researcher's contribution centers on a seminal 2010 study published in Psychiatry Research: Neuroimaging, which examined functional MRI abnormalities in the dorsolateral prefrontal cortex during working memory tasks in bipolar subjects across manic, euthymic, and depressed phases.

ORIGINALITY: This work appears to address the need for neurobiological markers that differentiate cognitive processing across the varying mood states of bipolar disorder. By isolating dorsolateral prefrontal cortex activity during working memory, the study suggests a nuanced understanding of how mood states modulate specific neural circuits, offering a targeted perspective on the disorder's neurophysiology.

SIGNIFICANCE: The paper has accumulated 189 citations, indicating substantial engagement within the field. Notably, 96.2% of these citations originate from independent researchers, demonstrating that the work has been widely adopted and validated by the broader scientific community rather than relying on self-citation or institutional bias.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 6

CORE PAPER

fMRI abnormalities in dorsolateral prefrontal cortex during a working memory task in manic, euthymic and depressed bipolar subjects

2010 · Psychiatry Research: Neuroimaging · 189 citations (GS)

Field-normalised: 141 Semantic Scholar citations place it in the top 10% of Psychology papers from 2010 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	A critical appraisal of neuroimaging studies of bipolar disorder: toward a new conceptualization of underlying neural circuitry and a road map for future research. (2014)	—	—	—
2	A quantitative meta-analysis of fMRI studies in bipolar disorder. (2011)	University of Cambridge GlaxoSmithKline Clinical Unit Cambridge	United Kingdom	—
3	Methodological recommendations for cognition trials in bipolar disorder by the International Society for Bipolar Disorders Targeting Cognition Task Force. (2017)	Brigham and Women's Hospital, Harvard Medical School, Copenhagen University Hospital, Rigshospitalet, Hospital Clinic, University of Barcelona	Canada, Denmark, Japan	—
4	Working memory impairment as an endophenotypic marker of a schizophrenia diathesis (2014)	University of Wisconsin-Madison, Vanderbilt University	United States	Result
5	Burnout and the Brain—A Mechanistic Review of Magnetic Resonance Imaging (MRI) Studies (2025)	Wrocław Medical University	Poland	—
6	Prefrontal photobiomodulation produces beneficial mitochondrial and oxygenation effects in older adults with bipolar disorder. (2023)	The University of Texas at Austin	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).

Citing-text excerpts — how the field used this work

RESULT Working memory impairment as an endophenotypic marker of a schizophrenia diathesis

"Townsend et al. (2010) conducted an fMRI study of n-back in bipolar disorder and control subjects."

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
AState	United States	—	1
University of Malaya	Malaysia	SCImago #1258 · THE 201–250	1
Hospital Clinic, University of Barcelona	Spain	—	1
Washington University School of Medicine	United States	—	1
University of Cambridge	United Kingdom	SCImago #63 · THE =3 · QS 6	1
McGill University	Canada	SCImago #168 · THE =41 · QS 27	1
Indiana University School of Medicine	United States	—	1
Centre for Addiction and Mental Health	Canada	SCImago #5667	1
Indiana University Bloomington	United States	SCImago #798 · QS =306	1
Yale University	United States	SCImago #76 · THE 10 · QS 21	1
University of Otago	New Zealand	SCImago #1311 · THE 351–400 · QS =197	1
Vanderbilt University	United States	SCImago #613 · THE =92 · QS 250	1
University of British Columbia	Canada	SCImago #144 · THE 45 · QS 40	1
Universidade de Lisboa	Portugal	SCImago #395 · THE 401–500 · QS =230	1
Wrocław Medical University	Poland	—	1

Geographic distribution of citing authors

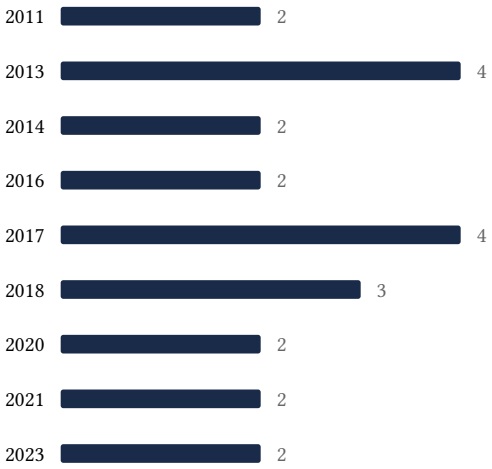
Country	Citing papers
United States	10
United Kingdom	4
Canada	3
Italy	2
Ireland	1
Japan	1
Malaysia	1
Australia	1
New Zealand	1
Poland	1

Country	Citing papers
Portugal	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	Amygdala astrocyte reduction in subjects with major depressive disorder but not bipolar disorder	6	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 2	Cognitive and neural aspects of information processing in major depressive disorder: an integrative perspective	6	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 3	fMRI abnormalities in dorsolateral prefrontal cortex during a working memory task in manic, euthymic and depressed bipolar subjects	6	8 CFR 204.5(i)(3) — Outstanding Researcher