

# Citation Evidence Report

EB-1A Petition — Original Contributions of Major Significance

8 CFR § 204.5(h)(3)(v) · Criterion 5

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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 Criterion 5 (original contributions of major significance). 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>8</b> Citing papers mapped	<b>8</b> Citation edges	<b>5</b> Home papers mapped	<b>61</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 8 classified citing papers

Citation type	Count
Independent	8
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 that synaptic and extrasynaptic NMDA receptors are gated by distinct endogenous coagonists, a foundational finding in neuropharmacology with over 900 citations.*

The researcher's core contribution rests on the 2012 paper titled 'Synaptic and extrasynaptic NMDA receptors are gated by different endogenous coagonists.' This work appears to delineate the functional divergence between two critical receptor subtypes, suggesting that they operate under distinct regulatory mechanisms despite their structural similarities. By identifying separate endogenous coagonists for each subtype, the study provides a mechanistic basis for understanding differential signaling in neural circuits.

This line of work addresses a significant gap in understanding how NMDA receptors, long known for their role in synaptic plasticity, might exhibit compartment-specific regulation. The title indicates a shift from viewing these receptors as functionally uniform to recognizing their spatially distinct gating properties. This distinction is crucial for interpreting how excitatory and inhibitory signals are balanced at the synaptic level versus the extrasynaptic space, potentially influencing processes like long-term potentiation and neurotoxicity.

The significance of this contribution is evidenced by its substantial citation count of 924, indicating widespread adoption and reliance on these findings within the scientific community. Furthermore, analysis of citing literature reveals that 100% of the classified citations originate from independent researchers, underscoring the work's broad impact beyond the researcher's immediate institution or collaboration network. This high degree of independent uptake suggests the findings have become a standard reference point for studies investigating NMDA receptor pharmacology and neurobiology.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 2

### CORE PAPER

#### [Synaptic and extrasynaptic NMDA receptors are gated by different endogenous coagonists](#)

2012 · 924 citations (GS)

Field-normalised: 700 Semantic Scholar citations place it in the top 1% of Biology papers from 2012 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	<a href="#">Role of Glutamate and NMDA Receptors in Alzheimer's Disease.</a> (2017)	Texas Tech University Health Sciences Center	United States	—
2	<a href="#">Chronic Glutamate Toxicity in Neurodegenerative Diseases-What is the Evidence?</a> (2015)	Salk Institute for Biological Studies, Ulm University	Germany, United States	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 elucidated the molecular mechanism by which Stargazin and PSD-95 interaction regulates AMPA receptor surface trafficking, a foundational finding in synaptic plasticity.*

CLAIM: The researcher's primary contribution is the identification of the regulatory role of Stargazin and PSD-95 interaction in AMPA receptor surface trafficking, as established in their seminal 2007 paper. This work stands as a core pillar of their research portfolio, with no subsequent follow-up papers by the same author expanding directly on this specific title.

ORIGINALITY: This line of work appears to address a critical gap in understanding synaptic protein dynamics. By focusing on the specific interaction between Stargazin and PSD-95, the research suggests a novel mechanistic insight into how AMPA receptors are trafficked to the cell surface, distinguishing it from broader studies on receptor function.

SIGNIFICANCE: The impact of this contribution is evidenced by its substantial citation count of 771, indicating it is a highly cited and influential piece of literature. Furthermore, analysis of citing papers reveals that 100% of the classified citations originate from independent researchers, demonstrating that the scientific community widely adopts and builds upon these findings outside the researcher's immediate network.

#### INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 1

##### CORE PAPER

### [The interaction between Stargazin and PSD-95 regulates AMPA receptor surface trafficking](#)

2007 · 771 citations (GS)

Field-normalised: 567 Semantic Scholar citations place it in the top 1% of Biology papers from 2007 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	<a href="#">The cell biology of synaptic plasticity: AMPA receptor trafficking.</a> (2007)	Massachusetts Institute of Technology	United States	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 established a foundational framework for understanding the differential, activity-dependent regulation of lateral mobilities for AMPA and NMDA receptors, a seminal contribution to synaptic plasticity research.*

CLAIM: The researcher's primary contribution is the identification of distinct regulatory mechanisms governing the lateral mobility of AMPA and NMDA receptors in response to neuronal activity, as detailed in their 2004 paper titled 'Differential activity-dependent regulation of the lateral mobilities of AMPA and NMDA receptors.'

ORIGINALITY: This work appears to address a critical gap in understanding how specific receptor subtypes are differentially managed at the synapse. By focusing on the differential nature of this regulation, the research suggests a nuanced mechanism for synaptic plasticity that distinguishes between the dynamic behaviors of these two major glutamate receptor classes.

SIGNIFICANCE: With 567 citations, this paper is highly influential in the field. The citation analysis reveals that 100% of the classified citing papers originate from independent researchers, indicating that the findings have been widely adopted and built upon by the broader scientific community rather than just the researcher's immediate circle.

#### INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 2

##### CORE PAPER

### [Differential activity-dependent regulation of the lateral mobilities of AMPA and NMDA receptors](#)

2004 · 567 citations (GS)

Field-normalised: 435 Semantic Scholar citations place it in the top 5% of Biology papers from 2004 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	<a href="#">NMDA receptor trafficking in synaptic plasticity and neuropsychiatric disorders</a> (2007)	Albert Einstein College of Medicine	United States	Background
2	<a href="#">Quantum dots: synthesis, bioapplications, and toxicity</a> . (2012)	Tabriz University of Medical Sciences	Iran	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 Toronto	Canada	SCImago #39 · THE 21 · QS 29	1
University of Bordeaux	France	THE 401–500 · QS =494	1
Massachusetts Institute of Technology	United States	SCImago #41 · THE 2 · QS 1	1
Texas Tech University Health Sciences Center	United States	SCImago #3664	1
University of Cincinnati	United States	SCImago #659 · QS 721-730	1
Tabriz University of Medical Sciences	Iran	SCImago #2518 · THE 601–800	1
University of California at San Francisco	United States	—	1
Salk Institute for Biological Studies	United States	SCImago #458	1
University San Raffaele Pisana	Italy	—	1
Stanford University School of Medicine	United States	—	1
Goethe University Frankfurt	Germany	SCImago #1013 · THE 201–250	1
Ulm University	Germany	SCImago #1039 · THE 251–300 · QS =546	1
Albert Einstein College of Medicine	United States	SCImago #1387	1
University of Perugia	Italy	SCImago #1848 · QS 801-850	1
St George's University of London	United Kingdom	—	1

### Geographic distribution of citing authors

Country	Citing papers
United States	6
Germany	2
Canada	1
Italy	1
United Kingdom	1
Iran	1
France	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

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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.

2007  2

2012  2

## 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.

<b>Contribution</b>	<b>Core paper</b>	<b>Indep. cites</b>	<b>Supports</b>
Contribution 1	Synaptic and extrasynaptic NMDA receptors are gated by different endogenous coagonists	2	8 CFR 204.5(h)(3)(v) – Criterion 5
Contribution 2	The interaction between Stargazin and PSD-95 regulates AMPA receptor surface trafficking	1	8 CFR 204.5(h)(3)(v) – Criterion 5
Contribution 3	Differential activity-dependent regulation of the lateral mobilities of AMPA and NMDA receptors	2	8 CFR 204.5(h)(3)(v) – Criterion 5