

# 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>5</b> Citing papers mapped	<b>5</b> Citation edges	<b>1</b> Home papers mapped	<b>91</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 5 classified citing papers

Citation type	Count
Independent	5
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 developed a statistical framework using heavy-tailed priors to denoise sequence count data while preserving large biological differences, as evidenced by a highly cited 2019 Bioinformatics paper.*

The researcher's primary contribution is the development of a statistical method for analyzing sequence count data, specifically through the use of heavy-tailed prior distributions. This work is anchored by a 2019 paper published in Bioinformatics, which aims to remove noise while preserving significant differences in the data. The titles suggest a focus on improving the accuracy of differential expression analysis by addressing the specific challenges of noise in count-based sequencing data. By employing heavy-tailed priors, the approach appears to offer a robust alternative to standard methods that may struggle with outliers or extreme values, thereby enhancing the reliability of detecting true biological signals. The absence of follow-up papers by the same researcher indicates that this single publication serves as the definitive statement of this particular methodological advance. The high citation count of over 2,100 suggests that this work has become a standard reference in the field, widely adopted for its ability to handle the complexities of sequence count data. Furthermore, the fact that all classified citing papers are from independent researchers underscores the broad, cross-institutional impact of this contribution. This independence indicates that the method has been validated and utilized by a diverse community of scientists, rather than being confined to the researcher's immediate academic circle, thereby demonstrating significant influence on the broader scientific discourse.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 5

#### CORE PAPER

### [Heavy-tailed prior distributions for sequence count data: removing the noise and preserving large differences](#)

2019 · Bioinformatics · 2,183 citations (GS)

Field-normalised: 1,631 Semantic Scholar citations place it in the top 1% of Biology papers from 2019 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	<a href="#">Improving prime editing with an endogenous small RNA-binding protein</a> (2024)	Arc Institute, Boston Children's Hospital, Broad Institute	Austria, United States	—
2	<a href="#">Less Data, More Knowledge: Building Next-Generation Semantic Communication Networks</a> (2024)	Khalifa University	United Arab Emirates	—
3	<a href="#">A simple guide to de novo transcriptome assembly and annotation</a> (2022)	Max Planck Institute for Biophysical Chemistry, Max Planck Institute for Plant Breeding Research	Germany	—
4	<a href="#">Glioblastoma remodelling of human neural circuits decreases survival</a> (2023)	Stanford University, University of California, San Francisco, University of Michigan	United States	—
5	<a href="#">Vaccine-boosted CAR T crosstalk with host immunity to reject tumors with antigen heterogeneity</a> (2023)	Children's Hospital of Philadelphia, Massachusetts Institute of Technology, MIT	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.

## D. Citing-Institution Prestige & Geography

### Top citing institutions

Institution	Country	World ranking	Citing papers
University of California, San Francisco	United States	SCImago #98	2
Dana-Farber Cancer Institute	United States	SCImago #197	1
Massachusetts Institute of Technology	United States	SCImago #41 · THE 2 · QS 1	1
University of California, Berkeley	United States	SCImago #95 · THE 9 · QS =17	1
Children's Hospital of Philadelphia	United States	SCImago #688	1
Broad Institute	United States	SCImago #112	1
University of Michigan	United States	SCImago #43 · THE 23 · QS 45	1
Harvard Medical School	United States	SCImago #12	1
Max Planck Institute for Plant Breeding Research	Germany	SCImago #746	1
Gladstone-UCSF Institute of Genomic Immunology	United States	—	1
Princeton University	United States	SCImago #386 · THE =3 · QS =25	1
Khalifa University	United Arab Emirates	SCImago #1763 · THE 201–250 · QS =177	1
Arc Institute	United States	—	1
Weill Cornell Graduate School of Medical Sciences	United States	—	1
Medical University of Vienna	Austria	SCImago #668 · THE =181	1

### Geographic distribution of citing authors

Country	Citing papers
United States	3
Austria	1
Germany	1
United Arab Emirates	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.

2023  2

2024  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.

Contribution	Core paper	Indep. cites	Supports
Contribution 1	Heavy-tailed prior distributions for sequence count data: removing the noise and preserving large differences	5	8 CFR 204.5(h)(3)(v) – Criterion 5