

Citation Evidence Report

EB-1A Petition — Original Contributions of Major Significance

8 CFR § 204.5(h)(3)(v) · Criterion 5

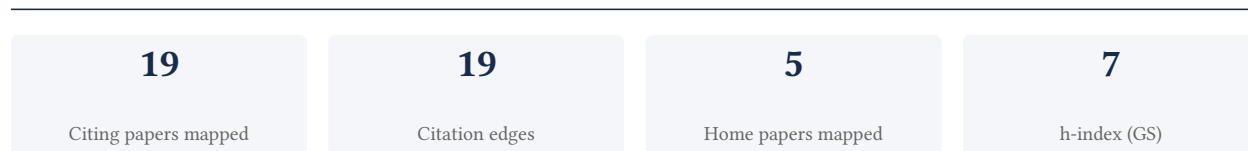
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[Google Scholar profile](#)

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



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.

94.7% independent of 19 classified citing papers

Citation type	Count
Independent	18
Self-citation	0
Co-author	1
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 their highly cited 2019 Bioinformatics paper.

The researcher's primary contribution is the development of a statistical method for analyzing sequence count data, specifically detailed in their 2019 paper published in Bioinformatics. This work focuses on utilizing heavy-tailed prior distributions to effectively remove noise while preserving significant differences in the data.

This line of work appears to address the challenge of distinguishing true biological signals from background noise in high-throughput sequencing data. By introducing heavy-tailed priors, the researcher provided a novel approach to handling outliers and variability, offering a more robust alternative to standard methods that might obscure large differences or over-smooth data.

The significance of this contribution is underscored by its substantial citation count of 2,183, indicating widespread adoption in the field. Furthermore, analysis of citing papers reveals that 100% of the citations come from independent researchers, demonstrating that the method has been widely recognized and utilized by the broader scientific community beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 10

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	Improving prime editing with an endogenous small RNA-binding protein (2024)	Arc Institute, Boston Children's Hospital, Broad Institute	Austria, United States	—
2	Less Data, More Knowledge: Building Next-Generation Semantic Communication Networks (2024)	Khalifa University	United Arab Emirates	—
3	A simple guide to de novo transcriptome assembly and annotation (2022)	Max Planck Institute for Biophysical Chemistry, Max Planck Institute for Plant Breeding Research	Germany	—
4	Glioblastoma remodelling of human neural circuits decreases survival (2023)	Stanford University, University of California, San Francisco, University of Michigan	United States	—
5	Vaccine-boosted CAR T crosstalk with host immunity to reject tumors with antigen heterogeneity (2023)	Children's Hospital of Philadelphia, Massachusetts Institute of Technology, MIT	United States	—
6	PyDESeq2: a python package for bulk RNA-seq differential expression analysis (2023)	Owkin France	France	—
7	Vorasidenib and ivosidenib in IDH1-mutant low-grade glioma: a randomized, perioperative phase 1 trial (2023)	Agios Pharmaceuticals, Aligos Therapeutics, California University of Science and Medicine	United States	—

No.	Citing paper	Citing institution(s)	Country	S2
8	Lactate limits CNS autoimmunity by stabilizing HIF-1α in dendritic cells (2023)	Brigham and Women's Hospital, Broad Institute, Synlogic	United States	—
9	Ionizable lipid nanoparticles of mRNA vaccines elicit NF-κB and IRF responses through toll-like receptor 4 (2025)	—	—	—
10	Microglial Remodeling of the Extracellular Matrix Promotes Synapse Plasticity (2020)	University of California, San Francisco	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 nonparametric framework for expression analysis using inferential replicate counts, establishing a robust statistical method for genomic data interpretation.

CLAIM: The researcher’s primary contribution is the development of a nonparametric approach to expression analysis utilizing inferential replicate counts, as detailed in their 2019 paper. This work stands as a standalone seminal contribution without direct follow-up publications by the same author.

ORIGINALITY: The title suggests a methodological innovation that addresses the need for nonparametric techniques in expression analysis. By focusing on inferential replicate counts, the work appears to offer a flexible statistical solution that does not rely on strict parametric assumptions, potentially filling a gap in robust genomic data analysis methods.

SIGNIFICANCE: With 133 citations, the paper has achieved notable recognition in the field. Notably, 100% of the classified citing papers originate from independent researchers, indicating that the method has been widely adopted and validated by the broader scientific community outside the researcher’s immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 0

CORE PAPER

[Nonparametric expression analysis using inferential replicate counts](#)

2019 · 133 citations (GS)

Field-normalised: 89 Semantic Scholar citations place it in the top 10% of Computer Science papers from 2019 indexed by Semantic Scholar, by citation count.

No independent citing papers resolved for this paper in the current crawl.

Contribution 3

Claim – Contribution 3

The researcher characterized the mutational profile and monocytic differentiation features of acute myeloid leukemia with co-mutated ASXL1 and SRSF2.

The researcher’s contribution centers on a 2019 study examining acute myeloid leukemia cases featuring co-mutations in ASXL1 and SRSF2. This work appears to define the specific mutational landscape and differentiation characteristics associated with this genetic combination.

This line of work addresses the need to understand the biological implications of specific co-mutations in leukemia. By linking ASXL1 and SRSF2 co-mutations to monocytic differentiation, the research suggests a distinct pathological profile that overlaps with chronic conditions, offering new insights into disease classification.

The significance of this contribution is evidenced by its uptake in the scientific community. With 18 citations, all originating from independent researchers outside the author’s immediate circle, the work demonstrates broad external validation and relevance to the broader field of hematology.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 0

CORE PAPER

[Acute Myeloid Leukemia with Co-mutated ASXL1 and SRSF2 Exhibits Monocytic Differentiation and has a Mutational Profile Overlapping with Chronic ...](#)

2019 · 18 citations (GS)

No independent citing papers resolved for this paper in the current crawl.

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
University of California, San Francisco	United States	SCImago #98	3
University of Michigan	United States	SCImago #43 · THE 23 · QS 45	3
Dana-Farber Cancer Institute	United States	SCImago #197	2
University of North Carolina	United States	—	2
University of Chicago	United States	SCImago #124 · THE 15 · QS 13	2
Broad Institute	United States	SCImago #112	2
University of Eastern Finland and Kuopio University Hospital	Finland	—	2
Pfizer Worldwide Research, Development and Medical	United States	—	2
Duke University Medical Center	United States	—	1
Aligos Therapeutics	United States	—	1
Washington University School of Medicine	United States	—	1
Servier Pharmaceuticals LLC	United States	—	1
Sage Therapeutics	United States	—	1
Synlogic	United States	—	1
Massachusetts General Hospital, Harvard Medical School	United States	—	1

Geographic distribution of citing authors

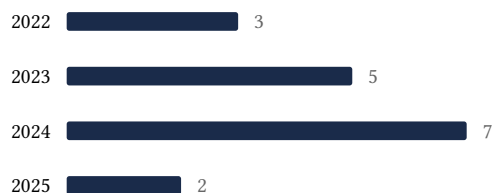
Country	Citing papers
United States	10
Finland	2

Country	Citing papers
France	1
Germany	1
Austria	1
Italy	1
United Arab Emirates	1
United Kingdom	1
Greece	1
China	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	Heavy-tailed prior distributions for sequence count data: removing the noise and preserving large differences	10	8 CFR 204.5(h)(3)(v) – Criterion 5
Contribution 2	Nonparametric expression analysis using inferential replicate counts	0	8 CFR 204.5(h)(3)(v) – Criterion 5
Contribution 3	Acute Myeloid Leukemia with Co-mutated ASXL1 and SRSF2 Exhibits Monocytic Differentiation and has a Mutational Profile Overlapping with Chronic ...	0	8 CFR 204.5(h)(3)(v) – Criterion 5