

# 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>106</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 MaxBin 2.0, a highly cited automated binning algorithm that significantly advanced the recovery of genomes from multiple metagenomic datasets.*

The researcher's primary contribution is the development of MaxBin 2.0, an automated binning algorithm designed to recover genomes from multiple metagenomic datasets. This work, published in *Bioinformatics* in 2016, stands as a seminal core paper in the field, with no subsequent follow-up papers by the same researcher building directly upon it in the provided record.

This line of work appears to address the challenge of accurately assembling and binning genomes from complex metagenomic data. The title suggests a focus on automation and the integration of multiple datasets, indicating a methodological advancement aimed at improving the precision and efficiency of genome recovery in metagenomic studies.

The significance of this contribution is underscored by its substantial citation count of 2899, indicating widespread adoption and influence within the scientific community. Furthermore, analysis of citing papers reveals that 100% of the classified citations originate from independent researchers, demonstrating that the work has been taken up and utilized by the broader field rather than just the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 5 · 1 flagged influential by Semantic Scholar

#### CORE PAPER

### [MaxBin 2.0: an automated binning algorithm to recover genomes from multiple metagenomic datasets](#)

2016 · *Bioinformatics* · 2,899 citations (GS)

Field-normalised: 2,300 Semantic Scholar citations place it in the top 1% of Biology papers from 2016 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	<a href="#">Extending and improving metagenomic taxonomic profiling with uncharacterized species using MetaPhlAn 4</a> (2023)	Harvard T.H. Chan School of Public Health, Harvard University, Istituto di Scienza e Tecnologie dell'Informazione	Austria, Italy, United Kingdom	—
2	<a href="#">Best practices for analysing microbiomes</a> (2018)	Ghent University, Northern Arizona University	Belgium, United States	—
3	<a href="#">A practical guide to amplicon and metagenomic analysis of microbiome data</a> (2020)	Children's Hospital, Zhejiang University School of Medicine, China Academy of Chinese Medical Sciences, Institute of Genetics and Developmental Biology, Chinese Academy of Sciences	China	—
4	<a href="#">Global diversity and distribution of antibiotic resistance genes in human wastewater treatment systems</a> (2025)	Arizona State University, Capital Medical University, Michigan State University	Austria, China, United States	—
5	<a href="#">MetaWRAP—a flexible pipeline for genome-resolved metagenomic data analysis</a> (2018)	Johns Hopkins University	United States	Influential

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 Vienna	Austria	THE =95 · QS 152	2
University of Naples Federico II	Italy	THE 301–350 · QS =379	1
Harvard T.H. Chan School of Public Health	United States	—	1
Michigan State University	United States	SCImago #436 · THE =105 · QS 161	1
Northern Arizona University	United States	SCImago #3335 · QS 1001-1200	1
University of California, Berkeley	United States	SCImago #95 · THE 9 · QS =17	1
University of Oklahoma	United States	SCImago #1042 · QS =664	1
Zoe Global	United Kingdom	—	1
Harvard University	United States	SCImago #4 · THE =5 · QS 5	1
Arizona State University	United States	SCImago #357 · THE 201–250 · QS =173	1
University of Trento	Italy	SCImago #1460 · THE 351–400 · QS =485	1
Tsinghua University	China	SCImago #8 · THE 12 · QS =17	1
Capital Medical University	China	SCImago #288 · THE 601–800	1
Johns Hopkins University	United States	SCImago #33 · THE 16 · QS 24	1
Institute of Genetics and Developmental Biology, Chinese Academy of Sciences	China	SCImago #623	1

### Geographic distribution of citing authors

Country	Citing papers
United States	4
Austria	2
China	2
Belgium	1
Italy	1
United Kingdom	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.

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## 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	MaxBin 2.0: an automated binning algorithm to recover genomes from multiple metagenomic datasets	5	8 CFR 204.5(h)(3)(v) – Criterion 5