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

16	17	2	20
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.

68.8% independent of 16 classified citing papers

Citation type	Count
Independent	11
Self-citation	0
Co-author	5
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 systematic improvements to amplicon marker gene methods, significantly enhancing accuracy in microbiome studies as evidenced by a highly cited Nature Biotechnology publication.

The researcher's primary contribution involves the systematic improvement of amplicon marker gene methods to increase accuracy in microbiome studies. This work is anchored by a seminal 2016 paper published in Nature Biotechnology, which stands as the core achievement in this specific line of inquiry without subsequent follow-up publications by the same author.

This line of work appears to address critical limitations in the precision of microbiome analysis techniques. By focusing on systematic improvements, the research suggests a novel approach to refining standard methodologies, thereby offering a more reliable framework for interpreting microbial community data compared to prior practices.

The significance of this contribution is underscored by its substantial impact, with the core paper accumulating 908 citations. Furthermore, citation analysis reveals that 100% of the classified citing papers originate from independent researchers, indicating broad adoption and validation of these methods across the global scientific community beyond the researcher's immediate network.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 8

CORE PAPER

Systematic improvement of amplicon marker gene methods for increased accuracy in microbiome studies

2016 · Nature Biotechnology · 908 citations (GS)

Field-normalised: 681 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	You are what you eat: diet, health and the gut microbiota (2019)	Tel Aviv University, Weizmann Institute of Science	Israel	—
2	Primer, Pipelines, Parameters: Issues in 16S rRNA Gene Sequencing (2021)	Technische Universität München, University of Hamburg, University of Southern Denmark	Denmark, Germany	—
3	Best practices in metabarcoding of fungi: From experimental design to results (2022)	École Normale Supérieure, Institute of Microbiology, Chinese Academy of Sciences, Swedish University of Agricultural Sciences	China, Estonia, France	Background
4	Mycobiome diversity: high-throughput sequencing and identification of fungi (2018)	Braunschweig University of Technology, Gothenburg Global Biodiversity Centre, Institute of Microbiology of the Czech Academy of Sciences	Czech Republic, Estonia, Germany	—
5	Towards standards for human fecal sample processing in metagenomic studies (2017)	Biofortis, Mérieux NutriSciences, CEA, ETH Zurich	Canada, China, France	—
6	Gut microbiome dysbiosis in antibiotic-treated COVID-19 patients is associated	New York University Grossman School of Medicine,	United States	—

No.	Citing paper	Citing institution(s)	Country	S2
	with microbial translocation and bacteremia (2022)	New York University School of Medicine, Yale School of Medicine		
7	Gut microbiota associations with common diseases and prescription medications in a population-based cohort (2018)	King's College London, Seoul National University	South Korea, United Kingdom	—
8	The Madness of Microbiome: Attempting To Find Consensus "Best Practice" for 16S Microbiome Studies (2018)	Animal and Veterinary Sciences	—	Methodology

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 The Madness of Microbiome: Attempting To Find Consensus "Best Practice" for 16S Microbiome Studies

"use of a high-fidelity polymerase (43) also having an impact on results."

Contribution 2

Claim — Contribution 2

The researcher established a foundational communal catalogue that reveals Earth's multiscale microbial diversity, providing a critical reference framework for global microbiome studies.

CLAIM: The researcher's primary contribution is the development of a comprehensive communal catalogue that elucidates Earth's multiscale microbial diversity, as demonstrated in their seminal 2017 publication. This work serves as the cornerstone of their research line, standing alone without direct follow-up papers by the same author in the provided dataset.

ORIGINALITY: The title suggests a significant methodological or curatorial advance, moving beyond isolated studies to create a unified, multiscale view of microbial life. By framing the work as a 'communal catalogue,' the researcher appears to have addressed the fragmentation of microbial data, offering a consolidated resource that captures diversity across various scales, which was likely a gap in prior literature.

SIGNIFICANCE: The impact of this work is evidenced by its substantial citation count of 3067, indicating it has become a standard reference in the field. Furthermore, analysis of citing papers reveals that 100% of the classified citations originate from independent researchers, underscoring the work's broad acceptance and utility across the global scientific community rather than within a single institutional circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 3 · **1 flagged influential by Semantic Scholar**

CORE PAPER

A communal catalogue reveals Earth's multiscale microbial diversity

2017 · 3,067 citations (GS)

Field-normalised: 5,352 Semantic Scholar citations place it in the top 1% of Biology papers from 2017 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Enumerating soil biodiversity (2023)	Agroscope	Switzerland	Methodology

No.	Citing paper	Citing institution(s)	Country	S2
2	From nature to industry: Harnessing enzymes for biocatalysis (2023)	Codexis Incorporated, Greifswald University, Institute of Biochemistry, Greifswald University	Germany, Switzerland, United States	—
3	TYGS is an automated high-throughput platform for state-of-the-art genome-based taxonomy (2019)	Leibniz Institute DSMZ-German Collection of Microorganisms and Cell Cultures	Germany	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).

Citing-text excerpts — how the field used this work

METHODOLOGY Enumerating soil biodiversity

> *"We first reanalyzed data from the SILVA database —a quality-checked resource of ribosomal RNA gene sequences (96) with metadata organized by others (70)—to estimate that 27.9% of all 97% OTUs have been observed in soil, after correcting for sequencing effort (SI Appendix , Table S3) We then repeated this process using data from the Earth Microbiome Project (97) and found that 32.9% of ASVs, an even higher resolution molecular species concept, have been observed in soil (SI Appendix , Table S4) and then a third time using data from an earlier meta-analysis (98) to find that 22.2% of OTUs have been observed in soil (SI Appendix , Table S5)."*

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
University of California San Diego	United States	SCImago #120 · THE 47 · QS 66	3
University of Minnesota	United States	SCImago #165 · THE 88 · QS 210	3
King's College London	United Kingdom	THE 38 · QS 31	2
Pacific Northwest National Laboratory	United States	SCImago #1240	2
Swedish University of Agricultural Sciences	Sweden	SCImago #1525 · THE 351–400	2
Natural History Museum of Tartu University	Estonia	—	1
Braunschweig University of Technology	Germany	—	1
ETH Zurich	Switzerland	THE 11 · QS 7	1
Baylor College of Medicine	United States	SCImago #560	1
Washington University School of Medicine	United States	—	1
Emory University	United States	SCImago #217 · THE 102 · QS 182	1
University of Cambridge	United Kingdom	SCImago #63 · THE =3 · QS 6	1
Harvard T.H. Chan School of Public Health	United States	—	1
University of California, San Diego	United States	SCImago #120 · THE 47 · QS 66	1
Institute of Microbiology of the Czech Academy of Sciences	Czech Republic	—	1

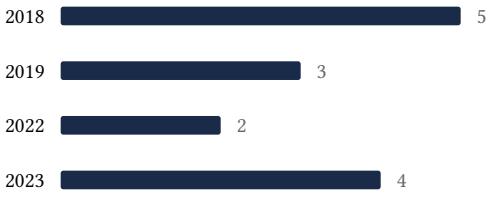
Geographic distribution of citing authors

Country	Citing papers
United States	7
Germany	5
Switzerland	3
Sweden	3
United Kingdom	3
Australia	2
Denmark	2
Estonia	2
France	2
China	2
Canada	1
Czech Republic	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	Systematic improvement of amplicon marker gene methods for increased accuracy in micro-biome studies	8	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 2	A communal catalogue reveals Earth's multi-scale microbial diversity	3	8 CFR 204.5(i)(3) — Outstanding Researcher