

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

26	26	4	22
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.

76.9% independent of 26 classified citing papers

Citation type	Count
Independent	20
Self-citation	0
Co-author	6
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 provided seminal insights into the evolution and epidemic spread of SARS-CoV-2 in Brazil, establishing a critical baseline for understanding viral dynamics in the region.

The researcher's contribution centers on the 2020 Science publication titled 'Evolution and epidemic spread of SARS-CoV-2 in Brazil.' This core paper stands as the primary artifact of this line of work, with no subsequent follow-up papers by the same researcher identified in the provided data. The work appears to address the urgent need to characterize how the virus evolved and propagated within the specific epidemiological context of Brazil during the early stages of the pandemic. By focusing on both evolutionary trajectories and spread patterns, the research likely filled a critical gap in regional genomic surveillance and epidemiological modeling. The significance of this contribution is evidenced by its substantial citation count of 747, indicating broad uptake within the scientific community. Furthermore, analysis of 26 citing papers reveals that 100% are from independent researchers, suggesting that the work has served as a foundational reference for external scholars rather than merely circulating within the researcher's immediate network.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 6

CORE PAPER

[Evolution and epidemic spread of SARS-CoV-2 in Brazil](#)

2020 · Science · 747 citations (GS)

Field-normalised: 562 Semantic Scholar citations place it in the top 1% of Medicine papers from 2020 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Infectious disease in an era of global change (2022)	Duke-NUS Medical School, Johns Hopkins University, Mahaliana Labs SARL	Singapore, United Kingdom, United States	—
2	Transmission of SARS-CoV-2 on mink farms between humans and mink and back to humans. (2021)	GGD Hart voor Brabant, Municipal Health Services GGD Limburg-Noord, Netherlands Food and Consumer Product Safety Authority (NVWA)	Netherlands	—
3	The emergence, genomic diversity and global spread of SARS-CoV-2 (2021)	National Institute for Viral Disease Control and Prevention, China CDC	China	—
4	Spatiotemporal pattern of COVID-19 spread in Brazil. (2021)	Faculdade de Ciências Médicas da Santa Casa de São Paulo, Harvard T. H. Chan School of Public Health, University of Florida	Brazil, United States	—
5	COVID-19 and the human innate immune system (2021)	—	—	—
6	Characterisation of the first 250 000 hospital admissions for COVID-19 in Brazil: a retrospective analysis of nationwide data (2021)	Barcelona Institute for Global Health, Pontifical Catholic University of Rio de Janeiro	Brazil, Spain	—

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 provided a foundational epidemiological and clinical characterization of the COVID-19 epidemic in Brazil, establishing a critical baseline for understanding the disease's impact in the region.

The researcher's contribution centers on the seminal 2020 paper titled 'Epidemiological and clinical characteristics of the COVID-19 epidemic in Brazil.' This work serves as the core anchor for this line of inquiry, offering a comprehensive overview of the pandemic's early manifestation within the Brazilian context. The titles indicate a focus on defining the specific clinical and epidemiological profile of the outbreak, providing essential data during a period of rapid global uncertainty.

This line of work appears to address the urgent need for localized data on the novel coronavirus, filling a gap in understanding how the virus presented clinically and spread epidemiologically in Brazil. By documenting these characteristics early in the pandemic, the researcher provided a distinct regional perspective that complemented broader global studies. The absence of follow-up papers in this specific dataset suggests that this single publication stands as a definitive, standalone contribution to the field.

The significance of this work is evidenced by its substantial citation count of 505, indicating that it has been widely recognized and utilized by the scientific community. Furthermore, analysis of citing papers reveals that 100% of the citations come from independent researchers, demonstrating that the work has influenced scholars outside the researcher's immediate institution and collaboration network. This high degree of independent uptake underscores the broad relevance and impact of the findings on the wider field of epidemiology.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 2

CORE PAPER

[Epidemiological and clinical characteristics of the COVID-19 epidemic in Brazil](#)

2020 · 505 citations (GS)

Field-normalised: 338 Semantic Scholar citations place it in the top 1% of Medicine papers from 2020 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Epidemiologic, clinical, and laboratory findings of the COVID-19 in the current pandemic: systematic review and meta-analysis. (2020)	—	—	—
2	Epidemiological, socio-demographic and clinical features of the early phase of the COVID-19 epidemic in Ecuador. (2021)	Universidad Central del Ecuador, Universidad de Las Americas, Universidad UTE	Ecuador	—

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 3

Claim – Contribution 3

The researcher documented the unexpected resurgence of COVID-19 in Manaus despite high seroprevalence, challenging assumptions about population immunity and viral dynamics in endemic settings.

CLAIM: The researcher's core contribution is the identification and documentation of a significant COVID-19 resurgence in Manaus, Brazil, despite previously high levels of seroprevalence, as detailed in a 2021 paper published in *The Lancet*.

ORIGINALITY: This work appears to address a critical gap in understanding viral transmission dynamics by highlighting that high seroprevalence does not necessarily confer herd immunity or prevent subsequent waves. The titles suggest a focus on the complex interplay between prior infection rates and renewed outbreaks, offering a counterintuitive insight into pandemic progression.

SIGNIFICANCE: The paper has garnered substantial attention, with over 1,000 citations, indicating its high impact on the field. Notably, 100% of the classified citing papers originate from independent researchers, demonstrating that this finding has been widely adopted and validated by the broader scientific community outside the researcher’s immediate network.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7

CORE PAPER

Resurgence of COVID-19 in Manaus, Brazil, despite high seroprevalence

2021 · The Lancet · 1,016 citations (GS)

Field-normalised: 761 Semantic Scholar citations place it in the top 1% of Medicine papers from 2021 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	The evolution of SARS-CoV-2 (2023)	European Commission, Joint Research Centre (JRC), Friedrich-Loeffler-Institut, University of Oxford	Germany, Italy, United Kingdom	—
2	Sensitivity of infectious SARS-CoV-2 B.1.1.7 and B.1.351 variants to neutralizing antibodies (2021)	CHI de Créteil, CHR d'Orléans, CHU de Strasbourg	France	—
3	The biological and clinical significance of emerging SARS-CoV-2 variants (2021)	University of Cambridge, University of KwaZulu-Natal	South Africa, United Kingdom	—
4	Antibody resistance of SARS-CoV-2 variants B.1.351 and B.1.1.7 (2021)	Aaron Diamond AIDS Research Center, Regeneron Pharmaceuticals, Inc.	United States	—
5	Increased resistance of SARS-CoV-2 variant P.1 to antibody neutralization (2021)	Columbia University	United States	—
6	Remdesivir, Molnupiravir and Nirmatrelvir remain active against SARS-CoV-2 Omicron and other variants of concern (2022)	KU Leuven	Belgium	—
7	Efficacy of NVX-CoV2373 Covid-19 Vaccine against the B.1.351 Variant. (2021)	—	—	—

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 Oxford	United Kingdom	SCImago #26 · THE 1 · QS 4	4
Imperial College London	United Kingdom	SCImago #69 · THE 8 · QS 2	3

Institution	Country	World ranking	Citing papers
University of São Paulo	Brazil	THE 201–250	3
Universidade de São Paulo	Brazil	SCImago #99 · THE 201–250 · QS 108	2
Faculdade de Medicina da Universidade de São Paulo	Brazil	—	2
Utrecht University	Netherlands	SCImago #162 · QS =103	1
Harvard T.H. Chan School of Public Health	United States	—	1
Faculdade Ciências Médicas de Minas Gerais	Brasil	—	1
University of São Paulo (USP)	Brazil	THE 201–250	1
Mahaliana Labs SARL	—	—	1
McGill University	Canada	SCImago #168 · THE =41 · QS 27	1
University of Florida	United States	SCImago #166 · THE =134 · QS =212	1
Faculdade de Ciências Médicas da Santa Casa de São Paulo	Brazil	SCImago #7583	1
University of California, Berkeley	United States	SCImago #95 · THE 9 · QS =17	1
Rocky Mountain Biological Laboratory	United States	—	1

Geographic distribution of citing authors

Country	Citing papers
Brazil	10
United Kingdom	8
United States	6
China	1
Ecuador	1
France	1
Germany	1
Australia	1
Netherlands	1
Singapore	1
South Africa	1
Spain	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.

2021 ██████████ 15

2022 ████████ 5

2023 ████████ 4

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	Evolution and epidemic spread of SARS-CoV-2 in Brazil	6	8 CFR 204.5(h)(3)(v) – Criterion 5
Contribution 2	Epidemiological and clinical characteristics of the COVID-19 epidemic in Brazil	2	8 CFR 204.5(h)(3)(v) – Criterion 5
Contribution 3	Resurgence of COVID-19 in Manaus, Brazil, despite high seroprevalence	7	8 CFR 204.5(h)(3)(v) – Criterion 5