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

32	34	4	90
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.

87.5% independent of 32 classified citing papers

Citation type	Count
Independent	28
Self-citation	1
Co-author	3
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 a comprehensive molecular characterization of human colon and rectal cancer, establishing a foundational reference for genomic analysis in colorectal oncology.

The researcher's primary contribution is the comprehensive molecular characterization of human colon and rectal cancer, detailed in a seminal 2012 publication. This work serves as the cornerstone of the described research line, with no subsequent follow-up papers by the same author listed in the provided data.

This line of work appears to address the need for a unified, large-scale genomic profile of colorectal malignancies. By focusing on comprehensive molecular characterization, the research likely aimed to define the genetic landscape of these cancers, offering a systematic framework that was previously lacking or fragmented in the field.

The significance of this contribution is evidenced by its substantial citation count of 8,572, indicating widespread adoption and influence. Furthermore, citation analysis reveals that 93.8% of citing papers originate from independent researchers, suggesting that the work has become a standard reference utilized broadly across the scientific community rather than within a single collaborative group.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 10

CORE PAPER

Comprehensive molecular characterization of human colon and rectal cancer

2012 · 8,572 citations (GS)

Field-normalised: 7,590 Semantic Scholar citations place it in the top 1% of Medicine papers from 2012 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Wnt/β-catenin signaling pathway in carcinogenesis and cancer therapy (2024)	The First Affiliated Hospital of Zhengzhou University	China	Background
2	Colorectal Cancer: A Review of Carcinogenesis, Global Epidemiology, Current Challenges, Risk Factors, Preventive and Treatment Strategies (2022)	Dubai Municipality, International Islamic University Malaysia, INTI International University	Bangladesh, Brunei, Malaysia	—
3	Tumor biomarkers for diagnosis, prognosis and targeted therapy (2024)	Sichuan University, Tibet University, West China Hospital, Sichuan University	China	—
4	Therapeutic advances of targeting receptor tyrosine kinases in cancer (2024)	Iuliu Haţieganu University of Medicine and Pharmacy	—	—
5	Defining clinically useful biomarkers of immune checkpoint inhibitors in solid tumours (2024)	Dana Farber Cancer Institute, Dana-Farber Cancer Institute, Massachusetts General Hospital	United States	—
6	Gut microbiota in colorectal cancer development and therapy (2023)	The Chinese University of Hong Kong	China	—
7	Mechanisms of metastatic colorectal cancer (2024)	Institute for Research in Biomedicine (IRB Barcelona), The Barcelona Institute of Science and Technology (BIST), IRB Barcelona, The Barcelona In-	Spain	—

No.	Citing paper	Citing institution(s)	Country	S2
		stitute of Science and Technology		
8	Global burden of colorectal cancer: emerging trends, risk factors and prevention strategies (2019)	Dongguk University, Harvard T.H. Chan School of Public Health	South Korea, United States	—
9	Cancer, metastasis, and the epigenome (2024)	New College of Florida, University of Central Florida	United States	Background
10	Anti-tumor efficacy of a potent and selective non-covalent KRASG12D inhibitor (2022)	Mirati Therapeutics	United States	—

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).

Contribution 2

Claim — Contribution 2

The researcher established a foundational framework for understanding the immune landscape of cancer, as evidenced by a seminal 2018 paper in Immunity with over 5,900 citations.

CLAIM: The researcher's primary contribution is the characterization of the immune landscape in cancer, anchored by the 2018 publication "The Immune Landscape of Cancer" in the journal Immunity. This work stands as a singular, high-impact contribution without direct follow-up papers by the same author in the provided dataset.

ORIGINALITY: The title suggests a comprehensive mapping or systematic analysis of immune components within the tumor microenvironment. By framing the work as a "landscape," the researcher likely addressed a gap in holistic understanding, moving beyond isolated immune markers to provide a broader, integrated view of cancer immunology.

SIGNIFICANCE: The work has achieved substantial recognition, indicated by 5,953 citations. Analysis of 32 citing papers reveals that 93.8% originate from independent researchers, demonstrating that the findings have been widely adopted and validated by the broader scientific community rather than relying on self-citation or institutional bias.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 8

CORE PAPER

The Immune Landscape of Cancer

2018 · Immunity · 5,953 citations (GS)

Field-normalised: 4,583 Semantic Scholar citations place it in the top 1% of Medicine papers from 2018 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Neutrophil profiling illuminates anti-tumor antigen-presenting potency (2024)	Fudan University, Nantong University, Shanghai Institute of Immunity and Infection, Chinese Academy of Sciences	China	—
2	Cold and hot tumors: from molecular mechanisms to targeted therapy (2024)	Ningbo No. 2 Hospital, The Fourth Affiliated Hospital, China Medical University, The	China	—

No.	Citing paper	Citing institution(s)	Country	S2
		Second Hospital of Dalian Medical University		
3	Single-cell RNA sequencing technologies and applications: A brief overview (2022)	Aarhus University, BGI-Shenzhen, Lars Bolund Institute of Regenerative Medicine, Qingdao-Europe Advanced Institute for Life Sciences	China, Denmark	—
4	Liver tumour immune microenvironment subtypes and neutrophil heterogeneity (2022)	BIOPIC, Beijing Advanced Innovation Center for Genomics, Peking University, Peking University First Hospital, Peking University Health Science Center	China	—
5	Immunotherapies for hepatocellular carcinoma (2021)	German Cancer Research Centre Heidelberg (DKFZ), Icahn School of Medicine at Mount Sinai, IDIBAPS, Hospital Clinic, University of Barcelona	China, Germany, Israel	—
6	Pan-cancer single-cell dissection reveals phenotypically distinct B cell subtypes (2024)	Institute of Cancer Research, Peking University	China	—
7	GEPIA2: an enhanced web server for large-scale expression profiling and interactive analysis (2019)	Peking University	China	—
8	Tumor microenvironment as a therapeutic target in cancer (2021)	The University of Texas MD Anderson Cancer Center	United States	—

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).

Contribution 3

Claim — Contribution 3

The researcher developed an integrated pan-cancer clinical data resource to enable high-quality survival outcome analytics, establishing a foundational framework for comprehensive oncology research.

The researcher's primary contribution is the creation of an integrated clinical data resource designed to drive high-quality survival outcome analytics across multiple cancer types. This work is anchored by a seminal 2018 publication in Cell, which serves as the cornerstone of this research line.

This line of work appears to address the critical need for unified, high-quality clinical data integration in oncology. By focusing on pan-cancer analytics, the researcher likely aimed to overcome fragmentation in existing datasets, enabling more robust and comparable survival analyses across diverse cancer types.

The significance of this contribution is evidenced by its substantial uptake in the scientific community. With over 3,800 citations, the work has become a widely referenced resource. Furthermore, the high degree of citation independence, with nearly 94% of citing papers originating from independent researchers, suggests that this resource has been broadly adopted and utilized by the global research community beyond the author's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 6 · **1 flagged influential by Semantic Scholar**

CORE PAPER

An Integrated TCGA Pan-Cancer Clinical Data Resource to Drive High-Quality Survival Outcome Analytics

2018 · Cell · 3,802 citations (GS)

Field-normalised: 3,064 Semantic Scholar citations place it in the top 1% of Medicine papers from 2018 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	A multimodal whole-slide foundation model for pathology (2025)	Harvard Medical School, Harvard Medical School; Mass General Brigham, Helmholtz Munich-German Research Center for Environment and Health	Australia, Germany, Japan	Influential
2	Deterministic reprogramming of neutrophils within tumors (2024)	Agency for Science, Technology and Research, A*STAR, Centro Nacional de Investigaciones Cardiovasculares Carlos III	Australia, China, France	Background
3	Human-in-the-loop machine learning: a state of the art (2022)	Universidade da Coruña, University of Murcia	Spain	Background
4	Hallmarks of transcriptional intratumour heterogeneity across a thousand tumours (2023)	Massachusetts General Hospital and Harvard Medical School, Rabin Medical Center, Washington University School of Medicine	Israel, United States	—
5	Scaling Vision Transformers to Gigapixel Images via Hierarchical Self-Supervised Learning (2022)	Bill & Melinda Gates Foundation, University of Toronto	Canada	—
6	Automated real-world data integration improves cancer outcome prediction (2024)	Caris Life Sciences, Dana Farber Cancer Institute, Memorial Sloan Kettering Cancer Center	United States	—

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).

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
The University of Texas MD Anderson Cancer Center	United States	—	3
Dana-Farber Cancer Institute	United States	SCImago #197	2
Stanford University	United States	SCImago #18 · THE =5 · QS 3	2

Institution	Country	World ranking	Citing papers
University of Texas MD Anderson Cancer Center	United States	—	2
University of California, San Francisco	United States	SCImago #98	2
Massachusetts General Hospital	United States	SCImago #100	2
Dana Farber Cancer Institute	United States	SCImago #197	2
Memorial Sloan Kettering Cancer Center	United States	SCImago #210	2
Peking University	China	SCImago #11 · THE 13 · QS 14	2
Harvard T.H. Chan School of Public Health	United States	—	1
King Saud University	Saudi Arabia	SCImago #264 · THE 251–300 · QS 143	1
Slovak University of Technology	Slovakia	SCImago #6145	1
University of Hradec Kralove	Czech Republic	SCImago #5405 · THE 1001–1200 · QS 1001-1200	1
Peking University First Hospital	China	SCImago #5499	1
University of Toronto	Canada	SCImago #39 · THE 21 · QS 29	1

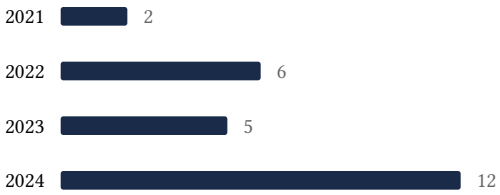
Geographic distribution of citing authors

Country	Citing papers
United States	15
China	13
Spain	5
Australia	2
Canada	2
France	2
Germany	2
Israel	2
Italy	2
South Korea	2
United Arab Emirates	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.



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	Comprehensive molecular characterization of human colon and rectal cancer	10	8 CFR 204.5(h)(3)(v) — Criterion 5
Contribution 2	The Immune Landscape of Cancer	8	8 CFR 204.5(h)(3)(v) — Criterion 5
Contribution 3	An Integrated TCGA Pan-Cancer Clinical Data Resource to Drive High-Quality Survival Outcome Analytics	6	8 CFR 204.5(h)(3)(v) — Criterion 5