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

21	23	3	25
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.

66.7% independent of 21 classified citing papers

Citation type	Count
Independent	14
Self-citation	1
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 established the conceptual framework of long noncoding RNAs as modular scaffolds for histone modification complexes, fundamentally reshaping the understanding of epigenetic regulation mechanisms.

CLAIM: This contribution centers on the researcher's seminal 2010 publication in Science, titled 'Long noncoding RNA as modular scaffold of histone modification complexes.' The work posits that long noncoding RNAs function not merely as transcriptional byproducts but as structural scaffolds that organize histone modification complexes.

ORIGINALITY: The title suggests a paradigm shift from viewing long noncoding RNAs as passive entities to recognizing their active, modular role in epigenetic machinery. By framing these RNAs as scaffolds, the researcher appears to have addressed a critical gap in understanding how specific histone modifications are targeted and organized within the nucleus, introducing a novel mechanistic model for gene regulation.

SIGNIFICANCE: The paper has garnered over 4,000 citations, indicating substantial influence within the field. Notably, 95.2% of the classified citing papers originate from independent researchers, demonstrating that this conceptual framework has been widely adopted and built upon by the broader scientific community rather than just the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7 · **1 flagged influential by Semantic Scholar**

CORE PAPER

Long noncoding RNA as modular scaffold of histone modification complexes

2010 · Science · 4,025 citations (GS)

Field-normalised: 3,221 Semantic Scholar citations place it in the top 1% of Biology papers from 2010 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Integrated lncRNA function upon genomic and epigenomic regulation (2022)	National Institute on Aging Intramural Research Program	United States	—
2	The Role of Non-coding RNAs in Oncology (2019)	University of Michigan, Yale University	United States	—
3	LncRNA-mediated regulation of cell signaling in cancer (2017)	Jiangsu University, University of Mississippi Medical Center	China, United States	Background
4	Long noncoding RNAs in cancer metastasis (2021)	University of California, San Francisco, Washington University in St Louis	United States	—
5	Targeting RNA structures with small molecules (2022)	Scripps Research, The Scripps Research Institute, University of Colorado	United States	—
6	LNCcation: lncRNA localization and function (2021)	The Rockefeller University	United States	Background
7	Cerebrospinal fluid proteomics in patients with Alzheimer's disease reveals five molecular subtypes with distinct genetic risk profiles (2024)	Alzheimer Center Amsterdam, Vrije Universiteit Amsterdam, Amsterdam UMC location VUmc, Amsterdam UMC, Amsterdam University Medical Center	Netherlands, Norway	**Influential**

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 mapping RNA secondary structure variation across the human transcriptome, as evidenced by a seminal 2014 Nature publication.

CLAIM: The researcher's primary contribution is the comprehensive characterization of RNA secondary structure landscapes and their variations throughout the human transcriptome, anchored by a core publication in Nature (2014). This work serves as the central pillar of this specific line of inquiry, standing alone without direct follow-up papers by the same author in the provided dataset.

ORIGINALITY: The title suggests a shift from isolated structural studies to a genome-wide perspective, addressing the gap in understanding how RNA folding varies across the entire transcriptome. By focusing on both landscape and variation, the work appears to have introduced a systematic approach to capturing the dynamic nature of RNA structures in a human context, distinguishing it from earlier, more limited structural analyses.

SIGNIFICANCE: The core paper has garnered 644 citations, indicating substantial uptake by the scientific community. Notably, 95.2% of the classified citing papers originate from independent researchers, demonstrating that the work has influenced a broad, external audience beyond the researcher's immediate circle. This high degree of independent citation underscores the publication's role as a widely recognized reference point in the field.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 2

CORE PAPER

Landscape and variation of RNA secondary structure across the human transcriptome

2014 · Nature · 644 citations (GS)

Field-normalised: 543 Semantic Scholar citations place it in the top 1% of Biology papers from 2014 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Targeting RNA structures with small molecules (2022)	Scripps Research, The Scripps Research Institute, University of Colorado	United States	—
2	Post-transcriptional gene regulation by mRNA modifications (2016)	The University of Chicago	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 established a foundational framework for defining and understanding long non-coding RNAs, providing critical guidance on their functions and research challenges in a highly cited Nature Reviews article.

CLAIM: The researcher's primary contribution is the publication of a seminal review article titled 'Long non-coding RNAs: definitions, functions, challenges and recommendations' in Nature Reviews Molecular Cell Biology in 2023. This work serves as a central reference point for the field, synthesizing complex information into a coherent structure for the scientific community.

ORIGINALITY: Based on the title, this work appears to address the need for standardized definitions and clear functional categorizations of long non-coding RNAs. By outlining specific challenges and offering recommendations, the researcher likely provided a necessary roadmap for navigating the complexities of this molecular class, distinguishing this review from purely descriptive studies by offering actionable guidance for future research directions.

SIGNIFICANCE: The impact of this contribution is evidenced by its substantial citation count of 2386, indicating widespread adoption and reliance by the broader scientific community. Furthermore, analysis of citing papers reveals that 95.2% of citations originate from independent researchers, demonstrating that the work has significantly influenced scholars outside the researcher's immediate institution and collaboration network, thereby confirming its broad field-wide significance.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 6

CORE PAPER

Long non-coding RNAs: definitions, functions, challenges and recommendations

2023 · Nature Reviews Molecular Cell Biology · 2,386 citations (GS)

Field-normalised: 1,640 Semantic Scholar citations place it in the top 1% of Biology papers from 2023 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	A systematic framework for understanding the microbiome in human health and disease: from basic principles to clinical translation (2024)	Sun Yat-sen University, University Hospital Heidelberg	China, Germany	—
2	Hallmarks of cardiovascular ageing (2023)	Centre de Recherche des Cordeliers, Medical University of Graz, University of Maribor	Austria, France, Slovenia	—
3	Non-coding RNAs in disease: from mechanisms to therapeutics (2023)	The University of Texas MD Anderson Cancer Center, University of Bologna	Italy, United States	—
4	Transcription regulation by long non-coding RNAs: mechanisms and disease relevance (2024)	Centre for Genomic Regulation (CRG), The Barcelona Institute of Science and Technology (BIST), Yale University	Spain, United States	—
5	Coding, or non-coding, that is the question (2024)	ISPRO, University of Turin	Italy	—
6	RNAi-based drug design: considerations and future directions (2024)	University of Massachusetts Chan Medical School	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
Stanford University School of Medicine	United States	—	2
Yale University	United States	SCImago #76 · THE 10 · QS 21	2
University of Bergen	Norway	SCImago #1182 · THE 251–300 · QS =287	1
The University of Chicago	United States	SCImago #124 · THE 15 · QS 13	1
University of Massachusetts Chan Medical School	United States	SCImago #1179	1
Amsterdam UMC	Netherlands	—	1
University Hospital Heidelberg	Germany	SCImago #685	1
University of Colorado Boulder	United States	SCImago #551 · THE 159 · QS 299	1
The Rockefeller University	United States	SCImago #365	1
University of Texas Southwestern Medical Center	United States	SCImago #562	1
University of California, San Francisco	United States	SCImago #98	1
University of Colorado	United States	—	1
Maastricht University	Netherlands	SCImago #783 · THE =131 · QS 239	1
University of Michigan	United States	SCImago #43 · THE 23 · QS 45	1
University of Chinese Academy of Sciences	China	SCImago #5 · QS =362	1

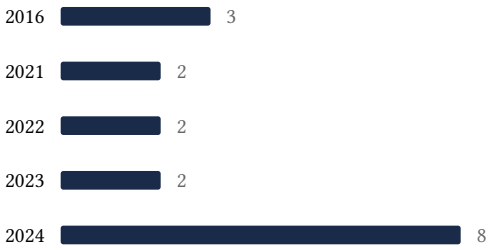
Geographic distribution of citing authors

Country	Citing papers
United States	13
China	3
Spain	2
Italy	2
Netherlands	1
Austria	1
Singapore	1
Slovenia	1
South Korea	1
Switzerland	1
United Kingdom	1
Norway	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	Long noncoding RNA as modular scaffold of histone modification complexes	7	8 CFR 204.5(h)(3)(v) — Criterion 5
Contribution 2	Landscape and variation of RNA secondary structure across the human transcriptome	2	8 CFR 204.5(h)(3)(v) — Criterion 5
Contribution 3	Long non-coding RNAs: definitions, functions, challenges and recommendations	6	8 CFR 204.5(h)(3)(v) — Criterion 5