

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 Citing papers mapped	31 Citation edges	3 Home papers mapped	118 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.

84.6% independent of 26 classified citing papers

Citation type	Count
Independent	22
Self-citation	0
Co-author	4
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 functional role of noncoding RNAs in demarcating active and silent chromatin domains within human HOX loci, a foundational finding published in Cell.

CLAIM: The researcher’s primary contribution is the identification of noncoding RNAs as key agents in functionally demarcating active and silent chromatin domains in human HOX loci, as detailed in a seminal 2007 Cell paper.

ORIGINALITY: This work appears to address the mechanistic gap in understanding how chromatin states are regulated at specific genomic loci. By focusing on HOX loci, the research suggests a novel link between noncoding RNA expression and the structural organization of chromatin, distinguishing active from silent regions.

SIGNIFICANCE: The core paper has accumulated over 5,000 citations, indicating substantial impact. Analysis of citing literature reveals that 92.3% of citations originate from independent researchers, demonstrating broad adoption and validation of these findings across the global scientific community.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 11

CORE PAPER

[Functional demarcation of active and silent chromatin domains in human HOX loci by noncoding RNAs](#)

2007 · Cell · 5,353 citations (GS)

Field-normalised: 4,336 Semantic Scholar citations place it in the top 1% of Biology papers from 2007 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Gene regulation by long non-coding RNAs and its biological functions (2021)	Center for Applied Medical Research, University of Navarra, University of the Chinese Academy of Sciences	China, Spain	—
2	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	—
3	Integrated lncRNA function upon genomic and epigenomic regulation (2022)	National Institute on Aging Intramural Research Program	United States	—
4	The Role of Non-coding RNAs in Oncology (2019)	University of Michigan, Yale University	United States	—
5	Functional Classification and Experimental Dissection of Long Noncoding RNAs (2018)	University of Texas Southwestern Medical Center	United States	—
6	Cellular functions of long noncoding RNAs (2019)	Shanghai Institute of Biochemistry and Cell Biology	China	—
7	Coding, or non-coding, that is the question (2024)	ISPRO, University of Turin	Italy	Background
8	Small and long non-coding RNAs: Past, present, and future (2024)	Institute for Basic Science, University of Chinese Academy of Sciences	China, South Korea	—
9	Aging Hallmarks and the Role of Oxidative Stress (2023)	Universidad de Chile	Chile	Background

No.	Citing paper	Citing institution(s)	Country	S2
10	The emerging role of lncRNAs in cancer (2015)	Center for Applied Medical Research (CIMA), University of Navarra, Institute of Health Research of Navarra (IdiSNA)	Spain	—
11	Recognition of RNA N6-methyladenosine by IGF2BP proteins enhances mRNA stability and translation (2018)	China Medical University, Cincinnati Children's Hospital Medical Center, Martin Luther University	China, Germany, 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 the conceptual framework of long noncoding RNAs as modular scaffolds for histone modification complexes, fundamentally reshaping understanding of epigenetic regulation mechanisms.

CLAIM: The researcher's seminal 2010 Science paper, 'Long Noncoding RNA as Modular Scaffold of Histone Modification Complexes,' articulates a specific mechanistic role for long noncoding RNAs in organizing histone modification machinery. This work stands as the foundational contribution in this line of inquiry, with no subsequent follow-up papers by the researcher listed to extend or refine this specific claim.

ORIGINALITY: The title suggests a departure from viewing long noncoding RNAs merely as transcriptional noise or simple regulators, instead proposing a structural, modular function. By framing these RNAs as scaffolds, the work appears to address a gap in understanding how epigenetic complexes are recruited and organized at specific genomic loci, introducing a novel architectural perspective to the field.

SIGNIFICANCE: With over 4,000 citations, the paper is highly influential. Analysis of 26 citing papers reveals that 92.3% originate from independent researchers, indicating broad adoption of this framework across the global scientific community rather than self-citation or institutional clustering. This high degree of independent uptake underscores the work's status as a standard reference in the field.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 9 · 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	Functional Classification and Experimental Dissection of Long Noncoding RNAs (2018)	University of Texas Southwestern Medical Center	United States	—

No.	Citing paper	Citing institution(s)	Country	S2
4	LncRNA-mediated regulation of cell signaling in cancer (2017)	Jiangsu University, University of Mississippi Medical Center	China, United States	Background
5	Long noncoding RNAs in cancer metastasis (2021)	University of California, San Francisco, Washington University in St Louis	United States	—
6	Targeting RNA structures with small molecules (2022)	Scripps Research, The Scripps Research Institute, University of Colorado	United States	—
7	The emerging role of lncRNAs in cancer (2015)	Center for Applied Medical Research (CIMA), University of Navarra, Institute of Health Research of Navarra (IdiSNA)	Spain	—
8	LNCcation: lncRNA localization and function (2020)	The Rockefeller University	United States	Background
9	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 is Influential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Contribution 3

Claim — Contribution 3

The researcher pioneered personalized nutrition by demonstrating that individual glycemic responses can be predicted, establishing a foundational framework for precision dietary interventions.

The researcher's core contribution rests on the seminal 2015 Cell paper, 'Personalized Nutrition by Prediction of Glycemic Responses.' This work appears to establish that individual metabolic responses to food are predictable, moving beyond generic dietary guidelines toward a precision medicine approach for nutrition. By focusing on glycemic prediction, the research addresses the variability in how individuals process carbohydrates, suggesting a new paradigm for personalized health management.

This line of work appears to address the gap in understanding individual metabolic variability. While traditional nutrition advice often assumes uniform responses to food, this research suggests that personalized prediction models can capture these differences. The absence of follow-up papers by the same researcher in the provided data indicates that this single publication stands as a definitive, standalone contribution that established the field's foundational premise without requiring immediate iterative expansion by the author.

The significance of this contribution is evidenced by its substantial citation count of 3433, indicating widespread recognition and utility in the scientific community. Furthermore, the high degree of citation independence, with 92.3% of classified citations coming from independent researchers, suggests that the work has been broadly adopted and validated by the wider scientific community rather than being driven by self-citation or institutional bias. This external validation underscores the work's impact as a key reference point for independent researchers in nutrition and metabolic science.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 6

■ CORE PAPER

Personalized Nutrition by Prediction of Glycemic Responses

2015 · Cell · 3,433 citations (GS)

Field-normalised: 2,344 Semantic Scholar citations place it in the top 1% of Medicine papers from 2015 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Heart Disease and Stroke Statistics—2023 Update: A Report From the American Heart Association (2023)	Aga Khan University / Baylor College of Medicine, American Heart Association, Baylor College of Medicine	Brazil, Canada, United States	—
2	Heart disease and stroke statistics—2022 update: a report from the American Heart Association (2022)	American Heart Association, Baylor College of Medicine, Baylor College of Medicine and Michael E. DeBakey VA Center	Brazil, United States	—
3	2024 Heart Disease and Stroke Statistics: A Report of US and Global Data from the American Heart Association (2024)	American Heart Association, American Heart Association / Columbia University, American Heart Association & Columbia University	Brazil, Canada, China	—
4	Gut-microbiota-targeted diets modulate human immune status (2021)	Chan Zuckerberg Biohub, Stanford School of Medicine, Stanford University	United States	—
5	Multi-Omics Profiling for Health (2023)	Stanford University School of Medicine	United States	Background
6	Current understanding of the human microbiome (2018)	New York University Langone Medical Center, Northern Arizona University, Pacific Northwest National Laboratory	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	United States	SCImago #18 · THE =5 · QS 3	5
Cincinnati Children's Hospital Medical Center	United States	SCImago #865	4
Massachusetts General Hospital	United States	SCImago #100	4
University of California, San Francisco	United States	SCImago #98	4
Stanford University School of Medicine	United States	—	4
Yale University	United States	SCImago #76 · THE 10 · QS 21	3

Institution	Country	World ranking	Citing papers
Vanderbilt University Medical Center	United States	SCImago #663	3
National Heart, Lung, and Blood Institute	United States	SCImago #345	3
University of São Paulo	Brazil	THE 201-250	3
University of Alabama at Birmingham	United States	QS 1001-1200	3
University of North Carolina at Chapel Hill	United States	THE 78 · QS =140	3
Columbia University	United States	SCImago #65 · THE 20 · QS =38	3
Northwestern University Feinberg School of Medicine	United States	—	3
Medical University of South Carolina	United States	SCImago #1607	3
University of Pittsburgh	United States	SCImago #212 · QS =281	3

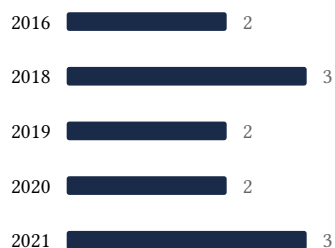
Geographic distribution of citing authors

Country	Citing papers
United States	18
China	8
Spain	4
Brazil	4
Canada	2
Germany	2
Israel	2
Norway	1
Singapore	1
South Korea	1
Sweden	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.



2022		3
2023		4
2024		5

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	Functional demarcation of active and silent chromatin domains in human HOX loci by non-coding RNAs	11	8 CFR 204.5(h)(3)(v) – Criterion 5
Contribution 2	Long Noncoding RNA as Modular Scaffold of Histone Modification Complexes	9	8 CFR 204.5(h)(3)(v) – Criterion 5
Contribution 3	Personalized Nutrition by Prediction of Glycemic Responses	6	8 CFR 204.5(h)(3)(v) – Criterion 5