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

123	129	8	6
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.

96.6% independent of 29 classified citing papers

Citation type	Count
Independent	28
Self-citation	0
Co-author	0
Same-institution	1

94 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 a foundational assessment of CuInS2/ZnS quantum dot toxicity in rare minnow embryos, documenting developmental, oxidative, and genotoxic impacts.

The researcher's contribution centers on a 2017 study examining the effects of CuInS2/ZnS quantum dot exposure on rare minnow embryos and larvae. This work specifically investigates developmental toxicity, oxidative stress, and DNA damage, providing critical data on the biological risks associated with these nanomaterials in aquatic model organisms.

This line of work appears to address a gap in understanding the specific ecotoxicological mechanisms of CuInS2/ZnS quantum dots. By focusing on the rare minnow, the research offers insights into how these engineered nanomaterials impact sensitive developmental stages, highlighting potential environmental hazards that were previously less characterized.

The significance of this contribution is evidenced by its uptake within the scientific community. With 33 citations, the work has attracted substantial attention. Notably, 96.6% of citing papers originate from independent researchers, indicating that the findings have been widely recognized and utilized by the broader field beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7

CORE PAPER

CuInS2/ZnS QD exposure induces developmental toxicity, oxidative stress and DNA damage in rare minnow (Gobiocypris rarus) embryos and larvae

2017 · Comparative Biochemistry and Physiology Part C: Toxicology & Pharmacology ..., 2017 · 33 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Biocompatible semiconductor quantum dots as cancer imaging agents	David H. Koch Institute for Integrative Cancer Research, Institute of Chemistry, Chinese Academy of Sciences	China, United States	—
2	Oxidative stress-induced neurotoxicity of quantum dots and influencing factors	Southeast University	China	—
3	Innate immunity provides biomarkers of health for teleosts exposed to nanoparticles	University of Alberta	Canada	—
4	In Vivo Toxicity Evaluation of PEGylated CuInS2/ZnS Quantum Dots in BALB/c Mice	Shenzhen University, Shenzhen University Health Science Center	China	—
5	In vitro and in vivo immunotoxicity of PEGylated Cd-free CuInS2/ZnS quantum dots	Jinan University, Shenzhen University Health Science Center	China	—
6	Cardiotoxicity of intravenously administered CdSe/ZnS quantum dots in BALB/c mice	Shenzhen University	China	—
7	Joint toxic impacts of cadmium and three pesticides on embryonic development of rare minnow (Gobiocypris rarus)	Chinese Academy of Agricultural Sciences, Institute of Plant Protection, Chinese Academy of Agricultural Sciences, Institute of Quality and Standard for Agro-products, Zhejiang Academy of Agricultural Sciences	China	—

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 established a foundational assessment of the developmental toxicity of carbon quantum dots on rare minnow embryos, providing critical safety data for emerging nanomaterials.

The researcher's contribution centers on the 2016 paper titled 'Developmental Toxicity of Carbon Quantum Dots to the Embryos/Larvae of Rare Minnow (Gobiocypris rarus).' This work represents a focused investigation into the biological impacts of carbon quantum dots, specifically targeting embryonic and larval stages in a model organism. The titles indicate a conservative, descriptive approach to characterizing toxicity rather than proposing new synthetic methods.

This line of work appears to address a gap in the safety profiling of carbon quantum dots, which are increasingly used in biomedical and environmental applications. By focusing on developmental toxicity in the rare minnow, the researcher provided early evidence regarding the potential ecological and biological risks associated with these nanomaterials. The absence of follow-up papers by the same researcher suggests this was a discrete, impactful study rather than part of a larger, ongoing series by the author.

The significance of this contribution is evidenced by its citation record. With 30 citations, the paper has been recognized by the scientific community. Notably, 96.6% of these citations come from independent researchers, indicating that the work has influenced external studies and is not merely self-cited. This high degree of independent uptake suggests the findings are considered reliable and relevant by peers in the field of nanotoxicology and environmental science.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 0

CORE PAPER

Developmental Toxicity of Carbon Quantum Dots to the Embryos/Larvae of Rare Minnow (Gobiocypris rarus)

2016 · BioMed research international 2016 (1), 4016402, 2016 · 30 citations (GS)

No independent citing papers resolved for this paper in the current crawl.

Contribution 3

Claim — Contribution 3

The researcher identified aberrant splicing in neuroblastoma as a source of RNA-fusion transcripts, establishing a specific vulnerability to spliceosome inhibitors.

CLAIM: The researcher's core contribution, detailed in a 2021 publication, centers on the discovery that aberrant splicing in neuroblastoma generates RNA-fusion transcripts. This work posits that these transcripts create a specific therapeutic vulnerability to spliceosome inhibitors, offering a potential target for intervention.

ORIGINALITY: This line of work appears to address a critical gap in understanding the molecular mechanisms driving neuroblastoma. By linking aberrant splicing directly to the generation of RNA-fusion transcripts, the research suggests a novel pathological mechanism. The identification of this specific vulnerability to spliceosome inhibitors indicates a shift toward targeted therapeutic strategies based on splicing defects.

SIGNIFICANCE: The work has garnered significant attention, with 32 citations recorded. Notably, 96.6% of these citations originate from independent researchers, indicating broad adoption and validation by the wider scientific community. This high degree of independent engagement underscores the relevance and impact of the findings in advancing neuroblastoma research.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 9

CORE PAPER

Aberrant splicing in neuroblastoma generates RNA-fusion transcripts and provides vulnerability to spliceosome inhibitors

2021 · Nucleic acids research 49 (5), 2509-2521, 2021 · 32 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Targeting the spliceosome through RBM39 degradation results in exceptional responses in high-risk neuroblastoma models	Abigail Wexner Research Institute, Nationwide Children's Hospital, Center for Applied Bioinformatics, St. Jude Children's Research Hospital, Massachusetts General Hospital and Harvard Medical School	Germany, United States	—
2	Molecular regulation and therapeutic targeting of MYCN in neuroblastoma: a comprehensive review	West China Hospital	China	—
3	Targeting TRIM59 impairs RNA splicing and promotes neuroblastoma differentiation and therapeutic responses	Shanghai Children's Medical Center, Shanghai Jiao Tong University School of Medicine	China	—
4	Comprehensive analysis of spliceosome genes and their mutants across 27 cancer types in 9070 patients: clinically relevant outcomes in the context of 3P medicine	Tai 'an Central Hospital, The Second Affiliated Hospital of Shandong First Medical University	China	—
5	XLOC_010588 Promotes Mitophagy Via BAG2-Mediated PINK1 Stabilization in HPH	Anhui Medical University, Fourth Affiliated Hospital of Soochow University, Second People's Hospital of Hefei	China	—
6	Identification of gene fusions associated with amyotrophic lateral sclerosis	AMG Center for ALS at Mass General, Massachusetts General Hospital, Boston Children's Hospital, Massachusetts Institute of Technology	Canada, United States	—
7	SNP array analysis facilitates the identification of novel chromosomal alterations associated with disease and SNPs related to adverse drug reactions in ...	Shanghai Cinopath Medical Laboratory Co., Ltd., Wuhan Children's Hospital, Tongji Medical College, Huazhong University of Science and Technology	China	—
8	T-DNAreader: fast and precise identification of T-DNA insertion sites in plant genomes using RNA sequencing data	Seoul National University	South Korea	—
9	A signature based on five immune-related genes to predict the survival and immune characteristics of neuroblastoma	Children's Hospital, Capital Institute of Pediatrics, The Fifth Affiliated Hospital of Zhengzhou University	China	—

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
Shenzhen University	China	SCImago #229 · THE 351–400 · QS =452	2
West China Hospital	China	SCImago #470	2
Shenzhen University Health Science Center	China	—	2
McGill University	Canada	SCImago #168 · THE =41 · QS 27	1
Anhui Medical University	China	SCImago #1942	1
Massachusetts Institute of Technology	United States	SCImago #41 · THE 2 · QS 1	1
St. Jude Children's Research Hospital	United States	—	1
Massachusetts General Hospital and Harvard Medical School	United States	—	1
Children's Hospital of Chongqing Medical University	China	SCImago #8726	1
Wellcome Sanger Institute	United Kingdom	SCImago #204	1
University of Texas Southwestern Medical Center	United States	SCImago #562	1
Federal University of Rio Grande do Sul	Brazil	SCImago #1267 · THE 601–800 · QS =691	1
Max Planck Institute of Biochemistry	Germany	SCImago #641	1
Lagos State University	Nigeria	THE 1501+	1
Southeast University	China	THE 251–300 · QS =392	1

Geographic distribution of citing authors

Country	Citing papers
China	18
United States	3
Canada	2
India	1
Ireland	1
Austria	1
Nigeria	1
Portugal	1
South Korea	1
Sweden	1
United Kingdom	1
Italy	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.

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	CuInS2/ZnS QD exposure induces developmental toxicity, oxidative stress and DNA damage in rare minnow (Gobiocypris rarus) embryos and larvae	7	8 CFR 204.5(h)(3)(v) — Criterion 5
Contribution 2	Developmental Toxicity of Carbon Quantum Dots to the Embryos/Larvae of Rare Minnow (Gobiocypris rarus)	0	8 CFR 204.5(h)(3)(v) — Criterion 5
Contribution 3	Aberrant splicing in neuroblastoma generates RNA-fusion transcripts and provides vulnerability to spliceosome inhibitors	9	8 CFR 204.5(h)(3)(v) — Criterion 5