Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

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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 Prong 2 of Matter of Dhanasar (the petitioner is well positioned to advance the proposed endeavor) — the prong where past citation evidence is most probative. 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

12	12	5	95
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.

91.7% independent of 12 classified citing papers

Citation type	Count
Independent	11
Self-citation	1
Co-author	0
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 developed a bioluminescent reporter system enabling the visualization of gene expression in living mammals, a foundational method cited nearly 700 times.

The researcher's primary contribution is the development of a bioluminescent reporter system that allows for the visualization of gene expression within living mammals. This work is anchored by a seminal 1997 paper that has accumulated 688 citations, establishing it as a highly influential reference in the field.

This line of work appears to address the challenge of monitoring biological processes in real-time within intact organisms. By introducing a bioluminescent approach, the researcher provided a non-invasive method to observe gene activity, distinguishing this contribution from earlier techniques that may have required tissue extraction or lacked temporal resolution.

The significance of this contribution is evidenced by its substantial citation count and the high degree of independent uptake. With 91.7% of classified citations originating from independent researchers, the work demonstrates broad adoption across the scientific community, indicating that it has become a standard tool or reference point for studies involving in vivo gene expression analysis.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 1

CORE PAPER

Visualizing gene expression in living mammals using a bioluminescent reporter

1997 · 688 citations (GS)

Field-normalised: 536 Semantic Scholar citations place it in the top 5% of Biology papers from 1997 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Fluorescence imaging with near-infrared light: new technological advances that enable in vivo molecular imaging. (2003)	Massachusetts General Hospital and Harvard 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).

Contribution 2

Claim — Contribution 2

The researcher developed bioluminescent indicators for living mammals, a seminal 1998 contribution that established a foundational method for in vivo biological imaging.

The researcher's primary contribution is the development of bioluminescent indicators for living mammals, as detailed in the seminal 1998 paper. This work stands as a core achievement in the field, with no subsequent follow-up papers by the researcher listed in this specific line of inquiry, suggesting the original publication encapsulates the fundamental innovation.

This line of work appears to address the challenge of visualizing biological processes within living mammalian systems. By introducing bioluminescent indicators, the researcher likely provided a novel tool for non-invasive observation, distinguishing this approach from prior methods that may have required ex vivo analysis or less specific markers. The title suggests a focus on practical application in complex biological environments.

The significance of this contribution is evidenced by its substantial citation count of 689, indicating widespread recognition and utility. Furthermore, analysis of citing papers reveals that 91.7% originate from independent researchers, demonstrating that the work has been adopted and built upon by the broader scientific community rather than solely by the researcher's immediate circle. This high degree of independent uptake underscores the work's foundational impact on the field.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 1

CORE PAPER

Bioluminescent indicators in living mammals

1998 · 689 citations (GS)

Field-normalised: 558 Semantic Scholar citations place it in the top 5% of Biology papers from 1998 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Molecular imaging. (2001)	Massachusetts General Hospital	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 advanced in vivo bioluminescence imaging for gene expression, establishing a foundational methodology widely adopted by independent scientists.

CLAIM: The researcher's core contribution is the advancement of in vivo bioluminescence imaging techniques for monitoring gene expression, as detailed in their seminal 2002 paper. This work stands as a singular, highly cited foundation in the field.

ORIGINALITY: The titles indicate a focus on improving the visualization of genetic activity within living organisms. By addressing the technical challenges of in vivo imaging, this line of work appears to have provided a critical methodological breakthrough that enabled more precise biological observation.

SIGNIFICANCE: With 1,172 citations, the paper is highly influential. Analysis of citing literature reveals that 91.7% of citations originate from independent researchers, demonstrating broad adoption and impact across the scientific community beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 2

CORE PAPER

Advances in in vivo bioluminescence imaging of gene expression

2002 · 1,172 citations (GS)

Field-normalised: 888 Semantic Scholar citations place it in the top 1% of Biology papers from 2002 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Molecular Probes for Autofluorescence-Free Optical Imaging. (2021)	Nanyang Technological University	Singapore	—

No.	Citing paper	Citing institution(s)	Country	S2
2	Single-cell bioluminescence imaging of deep tissue in freely moving animals. (2018)	Kyoto University, RIKEN, The University of Electro-Communications	Japan	—

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
Nanyang Technological University	Singapore	SCImago #137	1
Islamic Azad University	Iran	QS 1201-1400	1
Mazandaran University of Medical Sciences	Iran	SCImago #6907 · THE 801–1000	1
The Walter and Eliza Hall Institute of Medical Research	Australia	SCImago #580	1
La Paz University Hospital	Spain	—	1
Tokyo Institute of Technology	Japan	QS 85	1
Massachusetts General Hospital and Harvard Medical School	United States	—	1
University of Tokyo	Japan	SCImago #141 · THE 26 · QS =36	1
RIKEN	Japan	—	1
Shahid Bahonar University of Kerman	Iran	SCImago #8740 · THE 1201–1500	1
Shiraz University	Iran	SCImago #5831 · THE 801–1000 · QS 701-710	1
University of Connecticut Health Center	United States	—	1
University of Würzburg	Germany	THE 179	1
Research and Development Center for Biotechnology	Iran	—	1

Geographic distribution of citing authors

Country	Citing papers
United States	5
Japan	2
Iran	1
Australia	1
Singapore	1
Spain	1
Lithuania	1

Country	Citing papers
Germany	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	Visualizing gene expression in living mammals using a bioluminescent reporter	1	Dhanasar — Prong 2 (well-positioned)
Contribution 2	Bioluminescent indicators in living mammals	1	Dhanasar — Prong 2 (well-positioned)
Contribution 3	Advances in in vivo bioluminescence imaging of gene expression	2	Dhanasar — Prong 2 (well-positioned)