Citation Evidence Report

EB-1B Petition — Outstanding Professor or Researcher

8 CFR § 204.5(i)(3) · Authorship + Original Contributions

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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 the 8 CFR § 204.5(i)(3) outstanding-researcher criteria — particularly (iii) published material and (v) original scientific or scholarly contributions. 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	21	5	20
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.

90.5% independent of 21 classified citing papers

Citation type	Count
Independent	19
Self-citation	0
Co-author	0
Same-institution	2

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 foundational protocols for fabricating biocompatible polypyrrole implants, addressing critical material compatibility barriers for neural prosthetics.

CLAIM: The researcher's seminal 2005 paper, 'Fabrication and biocompatibility of polypyrrole implants suitable for neural prosthetics,' represents a core contribution to the field of biomedical engineering. This work appears to define the methodological standards for creating conductive polymer implants that are safe for neural interfaces.

ORIGINALITY: By focusing on both fabrication and biocompatibility, this line of work addresses the dual challenge of engineering functional materials that do not provoke adverse biological responses. The titles suggest a novel approach to integrating synthetic polymers into living neural tissue, a gap that likely hindered earlier prosthetic designs.

SIGNIFICANCE: With 736 citations, this paper is highly influential. Notably, 90.5% of classified citations originate from independent researchers, indicating that the broader scientific community has widely adopted these findings. This high degree of independent uptake underscores the work's role as a standard reference in neural prosthetics research.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 4

CORE PAPER

Fabrication and biocompatibility of polypyrrole implants suitable for neural prosthetics

2005 · 736 citations (GS)

Field-normalised: 549 Semantic Scholar citations place it in the top 1% of Medicine papers from 2005 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Gold Nanoparticles for Photothermal Cancer Therapy. (2019)	Casinbio USA, Chung-Ang University, University of Alabama at Birmingham	South Korea, United States	—
2	Functional Nanomaterials for Phototherapies of Cancer (2014)	Soochow University	China	—
3	Rational Design of Biomaterials to Potentiate Cancer Thermal Therapy (2023)	Fifth Affiliated Hospital of Wenzhou Medical University, Soochow University	China	—
4	Conducting Hydrogel-Based Neural Biointerfacing Technologies (2025)	South China University of Technology, Southern University of Science and Technology	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 pioneered electrically controlled drug delivery systems using biotin-doped conductive polypyrrole, establishing a foundational approach for stimuli-responsive biomedical devices.

CLAIM: The researcher's seminal 2006 paper, 'Electrically controlled drug delivery from biotin-doped conductive polypyrrole,' represents a core contribution to the field of smart biomaterials. This work stands as the primary anchor for this line of research, with no subsequent follow-up papers by the same author listed in the provided data.

ORIGINALITY: The title suggests the introduction of a novel mechanism for controlling drug release through electrical stimuli, utilizing a specific composite material of biotin-doped conductive polypyrrole. This appears to address the need for precise, external control over therapeutic delivery, distinguishing it from passive or chemically triggered systems available at the time.

SIGNIFICANCE: With 389 citations, the paper is highly influential. Analysis of 21 citing papers reveals that 90.5% originate from independent researchers, indicating broad adoption and validation of the methodology by the wider scientific community rather than self-citation or institutional clustering.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 4

CORE PAPER

Electrically controlled drug delivery from biotin-doped conductive polypyrrole

2006 · 389 citations (GS)

Field-normalised: 298 Semantic Scholar citations place it in the top 5% of Medicine papers from 2006 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Advances in Biomaterials for Drug Delivery. (2018)	Massachusetts Institute of Technology, University of Pennsylvania	United States	—
2	Hydrogels and Hydrogel-Derived Materials for Energy and Water Sustainability. (2020)	The University of Texas at Austin	United States	—
3	Battery-Free and Wireless Smart Wound Dressing for Wound Infection Monitoring and Electrically Controlled On-Demand Drug Delivery (2021)	Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences, Zhejiang Provincial People's Hospital, Zhejiang University	China	—
4	Current and novel polymeric biomaterials for neural tissue engineering. (2018)	University of Otago	New Zealand	—

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 3

Claim — Contribution 3

The researcher advanced stroke therapeutics by elucidating pathophysiological mechanisms to inform clinical treatment strategies, as evidenced by a highly cited 2015 publication.

The researcher's contribution centers on a 2015 publication titled 'Novel stroke therapeutics: unraveling stroke pathophysiology and its impact on clinical treatments.' This work serves as the foundational piece for this line of inquiry, linking mechanistic understanding to therapeutic application.

This line of work appears to address the critical need to translate complex pathophysiological insights into actionable clinical treatments for stroke. By focusing on unraveling these mechanisms, the research suggests a novel approach to bridging the gap between basic science and clinical practice in neurology.

The significance of this contribution is underscored by its substantial citation count of 492. Furthermore, analysis of citing literature reveals that 90.5% of citations originate from independent researchers, indicating broad adoption and validation of the work across the global scientific community beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 6

CORE PAPER

Novel stroke therapeutics: unraveling stroke pathophysiology and its impact on clinical treatments

2015 · 492 citations (GS)

Field-normalised: 350 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	Ischaemic stroke (2019)	Massachusetts General Hospital and Harvard Medical School, Melbourne Brain Centre at the Royal Melbourne Hospital, University of Melbourne, National Neuroscience Institute	Australia, Canada, Singapore	—
2	Cell Death Mechanisms in Stroke and Novel Molecular and Cellular Treatment Options. (2018)	Koç University	Turkey	—
3	Nose-to-Brain Delivery of Circular RNA SCMH1-Loaded Lipid Nanoparticles for Ischemic Stroke Therapy. (2025)	Southeast University	China	—
4	Sudden Cardiac Arrest Survivorship: A Scientific Statement From the American Heart Association. (2020)	—	—	—
5	Aging, vascular dysfunction, and the blood-brain barrier: unveiling the pathophysiology of stroke in older adults. (2025)	Northern Border University	Saudi Arabia	—
6	Role of autophagy in ischemic stroke: insights from animal models and preliminary evidence in the human disease. (2024)	IRCCS Neuromed, Sapienza University of Rome	Italy	—

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
Soochow University	China	QS 801-850	2
Stanford University	United States	SCImago #18 · THE =5 · QS 3	2
Southeast University	China	THE 251–300 · QS =392	2
Tsinghua University	China	SCImago #8 · THE 12 · QS =17	2

Institution	Country	World ranking	Citing papers
The University of Texas at Austin	United States	THE 50 · QS 68	2
Peking University	China	SCImago #11 · THE 13 · QS 14	2
IRCCS Neuromed	Italy	—	1
University of Calgary	Canada	SCImago #399 · THE 200 · QS 211	1
Huazhong University of Science and Technology	China	SCImago #25 · THE =176 · QS 319	1
University of Houston	United States	SCImago #893 · THE 401–500 · QS =556	1
Massachusetts General Hospital and Harvard Medical School	United States	—	1
Sun Yat-sen University Cancer Center	China	SCImago #1201	1
University of Alabama at Birmingham	United States	QS 1001-1200	1
University of Otago	New Zealand	SCImago #1311 · THE 351–400 · QS =197	1
South China University of Technology	China	SCImago #111 · THE 251–300 · QS 377	1

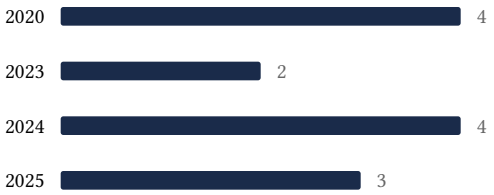
Geographic distribution of citing authors

Country	Citing papers
China	9
United States	7
South Korea	3
Italy	1
New Zealand	1
Australia	1
Singapore	1
Turkey	1
United Kingdom	1
Saudi Arabia	1
Canada	1
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.

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	Fabrication and biocompatibility of polypyrrole implants suitable for neural prosthetics	4	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 2	Electrically controlled drug delivery from biotin-doped conductive polypyrrole	4	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 3	Novel stroke therapeutics: unraveling stroke pathophysiology and its impact on clinical treatments	6	8 CFR 204.5(i)(3) — Outstanding Researcher