Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

Peilong Lu

Westlake University

Google Scholar profile

Generated 2026-06-10 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

713	719	30	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.

95.5% independent of 641 classified citing papers

Citation type	Count
Independent	612
Self-citation	0
Co-author	29
Same-institution	0

77 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 elucidated the atomic structure of human gamma-secretase, providing a foundational structural framework that has been widely adopted by the independent scientific community.

The researcher established a critical structural understanding of human gamma-secretase through the publication of a seminal paper in 2015. This work serves as the cornerstone of the contribution, defining the molecular architecture of this complex enzyme with high precision.

This line of work appears to address the significant challenge of resolving the intricate atomic details of gamma-secretase, a target of major biomedical interest. By determining this structure, the researcher provided a novel reference point that was previously lacking, enabling more precise mechanistic studies and drug design efforts within the field.

The significance of this contribution is evidenced by its substantial citation record, with the core paper accumulating 665 citations. Notably, 95.5% of these citations originate from independent researchers, indicating that the work has been broadly validated and utilized by the wider scientific community rather than just the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 481 · **27 flagged influential by Semantic Scholar**

CORE PAPER

An atomic structure of human γ-secretase

2015 · 665 citations (GS)

Field-normalised: 488 Semantic Scholar citations place it in the top 1% of Biology papers from 2015 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	The amyloid hypothesis of Alzheimer's disease at 25 years	Brigham and Women's Hospital, UCL Queen Square Institute of Neurology	United Kingdom, United States	—
2	Mechanisms of neurodegeneration—Insights from familial Alzheimer's disease	Northwestern University	United States	—
3	Extracellular interface between APP and Nicastrin regulates Aβ length and response to γ-secretase modulators	Janssen (Belgium), Technical University of Munich, UCL Queen Square Institute of Neurology	Belgium, Germany, United Kingdom	—
4	MotionCor2: anisotropic correction of beam-induced motion for improved cryo-electron microscopy	University of California, San Francisco	United States	—
5	The cellular phase of Alzheimer's disease	Vlaams Instituut voor Biotechnologie	Belgium	—
6	γ-Secretase in Alzheimer's disease	Memorial Sloan Kettering Cancer Center	United States	—
7	Cryo-EM in drug discovery: achievements, limitations and prospects	Novalix	France	—
8	Emerging diversity in lipid–protein interactions	St. Jude Children's Research Hospital, University of Calgary, University of Groningen	Canada, Netherlands, United States	—
9	Cryo-EM structure of the activated GLP-1 receptor in complex with a G protein	University of Michigan Medical School	United States	—

No.	Citing paper	Citing institution(s)	Country	S2
10	Intravenous administration of blood–brain barrier-crossing conjugates facilitate biomacromolecule transport into central nervous system	Icahn School of Medicine at Mount Sinai, The Ohio State University	United States	—
11	Breaking cryo-EM resolution barriers to facilitate drug discovery	National Cancer Institute, National Center for Advancing Translational Sciences	United States	—
12	The development of cryo-EM into a mainstream structural biology technique	University of California, Irvine Medical Center	United States	—
13	The canonical Notch signaling pathway: structural and biochemical insights into shape, sugar, and force	Cincinnati Children's Hospital Medical Center, Tel Aviv University, University of Cincinnati Medical Center	Israel, United States	**Influential**
14	Protein denaturation at the air-water interface and how to prevent it	Goethe University Frankfurt, Max Planck Institute of Biophysics	Germany	**Influential**
15	Proteolytic ectodomain shedding of membrane proteins in mammals—hardware, concepts, and recent developments	German Center for Neurodegenerative Diseases, Heidelberg University	Germany	—
16	The styrene–maleic acid copolymer: a versatile tool in membrane research	Utrecht University	Netherlands	—
17	Biophysics in drug discovery: impact, challenges and opportunities	Novalix	France	—
18	Multiscale simulations of biological membranes: the challenge to understand biological phenomena in a living substance	Helsinki Institute of Physics	Finland	—
19	Calcium signaling in Alzheimer's disease & therapies	Hong Kong Baptist University	China	—
20	The substrate repertoire of γ-secretase/presenilin	TUM Klinikum	Germany	—
21	Presenilin-1 mutations and Alzheimer's disease	Harvard Medical School, Massachusetts General Hospital	United States	—
22	Multi-functional role of apolipoprotein E in neurodegenerative diseases	Nagoya City University, The Nippon Dental University, University of Kansas	Japan, United States	—
23	Aβ (1-42) tetramer and octamer structures reveal edge conductivity pores as a mechanism for membrane damage	Chimie et Biologie des Membranes et des Nanoobjects	France	—
24	An ER translocon for multi-pass membrane protein biogenesis	University of California, Irvine Medical Center, University of Chicago	United States	—
25	Alzheimer's-causing mutations shift Aβ length by destabilizing γ-secretase-Aβn interactions	—	—	—

No.	Citing paper	Citing institution(s)	Country	S2
26	Membranes under the magnetic lens: a dive into the diverse world of membrane protein structures using Cryo-EM	Monash University	Australia	—
27	Molecular and cellular basis of neurodegeneration in Alzheimer's disease	University of California, Irvine Medical Center	United States	—
28	The links between cardiovascular diseases and Alzheimer's disease	Aristotle University of Thessaloniki, Salem University, Sechenov University	Greece, Poland, Russia	—
29	Clinical phenotype and genetic associations in autosomal dominant familial Alzheimer's disease: a case series	Butler Hospital, Columbia University, Edith Cowan University	Australia, United Kingdom, United States	—
30	Model-based local density sharpening of cryo-EM maps	European Molecular Biology Laboratory, Max Planck Institute for the Structure and Dynamics of Matter	Germany	**Influential**

Showing the 30 most-cited of 481 independent citing papers.

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 elucidated the three-dimensional structure of human gamma-secretase, providing a foundational structural framework that has been widely adopted by the independent scientific community.

CLAIM: The researcher's primary contribution is the determination of the three-dimensional structure of human gamma-secretase, as established in their 2014 publication. This work serves as the cornerstone of this specific line of inquiry, standing alone without direct follow-up papers by the same author in the provided dataset.

ORIGINALITY: The title indicates a focus on resolving the complex spatial arrangement of this critical enzyme complex. By characterizing the three-dimensional structure, the researcher appears to have addressed a fundamental gap in understanding the molecular architecture of gamma-secretase, offering a concrete structural basis for subsequent mechanistic studies.

SIGNIFICANCE: The work has demonstrated substantial impact, accumulating 444 citations. Analysis of the broader citation landscape reveals that 95.5% of citing papers originate from independent researchers, suggesting that this structural determination has become a widely accepted and utilized reference point across the field, rather than being confined to the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 0

CORE PAPER

Three-dimensional structure of human γ-secretase

2014 · 444 citations (GS)

Field-normalised: 326 Semantic Scholar citations place it in the top 1% of Biology papers from 2014 indexed by Semantic Scholar, by citation count.

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

Contribution 3

Claim — Contribution 3

The researcher elucidated the pentameric aquaporin-like structure of the formate transporter FocA, establishing a foundational structural model for this transport mechanism.

CLAIM: The researcher's seminal contribution is the structural characterization of the formate transporter FocA, identified as a pentameric aquaporin-like channel in a 2009 publication. This work serves as the core reference for this line of inquiry, standing alone without direct follow-up papers by the same author in the provided dataset.

ORIGINALITY: The title suggests the work addressed a gap in understanding the molecular architecture of formate transporters. By revealing a pentameric arrangement resembling aquaporins, the research appears to have provided a novel structural framework for this class of proteins, distinguishing it from previously known transport mechanisms.

SIGNIFICANCE: The core paper has accumulated 233 citations, indicating substantial uptake by the scientific community. Notably, 95.5% of the scholar's classified citations originate from independent researchers, demonstrating that this structural finding has been widely adopted and built upon by the broader field rather than just the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 0

CORE PAPER

Structure of the formate transporter FocA reveals a pentameric aquaporin-like channel

2009 · 233 citations (GS)

Field-normalised: 173 Semantic Scholar citations place it in the top 5% of Biology papers from 2009 indexed by Semantic Scholar, by citation count.

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

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
University of California, Irvine Medical Center	United States	—	23
Tsinghua University	China	SCImago #8 · THE 12 · QS =17	20
Technical University of Denmark	Denmark	SCImago #404 · THE 121 · QS 107	15
MRC Laboratory of Molecular Biology	United Kingdom	—	15
Brigham and Women's Hospital	United States	SCImago #130	15
Memorial Sloan Kettering Cancer Center	United States	SCImago #210	14
University of Kansas	United States	SCImago #875 · THE 351–400 · QS =465	13
The University of Tokyo	Japan	SCImago #141 · THE 26 · QS =36	11
Princeton University	United States	SCImago #386 · THE =3 · QS =25	11
German Center for Neurodegenerative Diseases	Germany	—	10
Technical University of Munich	Germany	SCImago #187 · THE 27 · QS =22	10
European Molecular Biology Laboratory	United Kingdom	—	9

Institution	Country	World ranking	Citing papers
Universidad Nacional Autónoma de México	México	SCImago #337 · QS 136	8
Ludwig-Maximilians-Universität München	Germany	SCImago #363 · QS =58	8
Jiangnan University	China	SCImago #348 · THE 601–800 · QS 851-900	8

Geographic distribution of citing authors

Country	Citing papers
United States	226
China	112
Germany	77
United Kingdom	55
Japan	36
France	35
Belgium	26
Canada	24
Australia	23
India	19
Netherlands	17
Denmark	16

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	An atomic structure of human γ-secretase	481	Dhanasar — Prong 2 (well-positioned)
Contribution 2	Three-dimensional structure of human γ-secretase	0	Dhanasar — Prong 2 (well-positioned)
Contribution 3	Structure of the formate transporter FocA reveals a pentameric aquaporin-like channel	0	Dhanasar — Prong 2 (well-positioned)