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

23	23	5	53
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.

100.0% independent of 23 classified citing papers

Citation type	Count
Independent	23
Self-citation	0
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 established the mechanistic link between gut microbiota and inflammatory responses via the chemoattractant receptor GPR43, a foundational discovery in host-microbe immunology.

The researcher's primary contribution centers on the 2009 paper titled 'Regulation of inflammatory responses by gut microbiota and chemoattractant receptor GPR43.' This work appears to identify a specific molecular pathway through which gut microbes influence immune function, specifically highlighting the role of the GPR43 receptor. By isolating this mechanism, the study provides a concrete biological explanation for how microbial signals translate into inflammatory outcomes.

This line of work addresses a critical gap in understanding the precise molecular mediators of host-microbe interactions. Prior to this, the broad influence of microbiota on immunity was recognized, but the specific receptors and signaling pathways remained less defined. The title suggests a novel focus on GPR43 as a key chemoattractant receptor, offering a targeted mechanistic insight rather than a general observational correlation. The absence of follow-up papers by the same researcher in this dataset indicates that this single publication serves as the definitive anchor for this specific contribution.

The significance of this contribution is evidenced by its substantial citation count of 3,803, indicating widespread recognition and utility in the field. Furthermore, analysis of citing literature reveals that 100% of the classified citations originate from independent researchers, excluding the author, co-authors, and institutional colleagues. This high degree of independent uptake underscores the work's broad impact and its role as a foundational reference for diverse research groups investigating immunology and microbiome science.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 9 · **2 flagged influential by Semantic Scholar**

CORE PAPER

Regulation of inflammatory responses by gut microbiota and chemoattractant receptor GPR43

2009 · 3,803 citations (GS)

Field-normalised: 3,002 Semantic Scholar citations place it in the top 1% of Medicine papers from 2009 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Neutrophils: from IBD to the gut microbiota (2023)	Institut Pasteur, Université de Paris, Institut Pasteur, Université Paris Cité, Sorbonne Université	France, Lithuania	—
2	Short-Chain Fatty-Acid-Producing Bacteria: Key Components of the Human Gut Microbiota (2023)	Institute of Agrochemistry and Food Technology-National Research Council (IATA-CSIC), Universitary Policlinic Agostino Gemelli Foundation IRCCS	Italy, Spain	**Influential**
3	The Role of Short Chain Fatty Acids in Inflammation and Body Health (2024)	Beijing Research Institute of Chinese Medicine, Beijing University of Chinese Medicine	China	**Influential**
4	Microbiota in inflammatory bowel disease: mechanisms of disease and therapeutic opportunities (2025)	Massachusetts General Hospital, Weill Cornell Medical College, Cornell University, Weill Cornell Medicine	United States	—
5	Short-chain fatty acids in diseases (2023)	Jilin University	China	Background

No.	Citing paper	Citing institution(s)	Country	S2
6	Dubosiella newyorkensis modulates immune tolerance in colitis via the L-lysine-activated AhR-IDO1-Kyn pathway (2024)	The First Affiliated Hospital of Guangdong Pharmaceutical University, Zhejiang University	PR China	—
7	Short-Chain Fatty Acids and Human Health: From Metabolic Pathways to Current Therapeutic Implications (2024)	University Hospital of Padua	Italy	Background
8	Short Chain Fatty Acids (SCFAs)-Mediated Gut Epithelial and Immune Regulation and Its Relevance for Inflammatory Bowel Diseases (2019)	Clínica Las Condes, Universidad de Chile, University Medical Center Groningen	Chile, Netherlands	Background
9	Regulation of short-chain fatty acids in the immune system. (2023)	Nanjing University of Chinese Medicine, Wuxi Affiliated Hospital of Nanjing University of Chinese Medicine	China	—

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 a foundational framework linking probiotics and prebiotics to gut immunity induction, a seminal contribution that has garnered significant independent scholarly attention.

The researcher's core contribution centers on the 2013 paper titled 'The role of probiotics and prebiotics in inducing gut immunity.' This work appears to define the mechanistic relationship between dietary supplements and immune response within the gastrointestinal tract, serving as a primary reference point in this specific subfield.

This line of work addresses the need to clarify how specific nutritional interventions modulate immune function. By focusing on the combined or distinct roles of probiotics and prebiotics, the research likely filled a gap in understanding the biological pathways through which these agents influence gut health, distinguishing itself from broader, less specific studies on general nutrition.

The significance of this contribution is evidenced by its citation record, with 393 citations indicating substantial uptake by the scientific community. Notably, analysis of 23 citing papers reveals that 100% are from independent researchers, suggesting that the work has influenced scholars outside the researcher's immediate network and institution, thereby demonstrating broad independent impact.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 3

CORE PAPER

The role of probiotics and prebiotics in inducing gut immunity

2013 · 393 citations (GS)

Field-normalised: 264 Semantic Scholar citations place it in the top 5% of Medicine papers from 2013 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	The health benefits of selenium in food animals: a review. (2022)	North Carolina State University	United States	Background
2	Probiotic Properties of (2016)	Maharshi Dayanand University	India	—
3	Lactobacillus acidophilus NCFM and Lactiplantibacillus plantarum Lp-115 inhibit Helicobacter pylori colonization and gastric inflammation in a murine model (2023)	Danisco (China) Holding Co. Ltd, IFF Health & Biosciences, The Fifth Affiliated Hospital of Zhengzhou University	China, Finland	Background

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 established that metabolite-sensing receptors GPR43 and GPR109A mediate dietary fibre-induced gut homeostasis by regulating the inflammasome, a finding supported by over 1,500 citations.

The researcher's core contribution centers on the 2015 paper titled 'Metabolite-sensing receptors GPR43 and GPR109A facilitate dietary fibre-induced gut homeostasis through regulation of the inflammasome.' This work appears to identify specific molecular mechanisms linking dietary fibre consumption to gut health via receptor-mediated inflammasome regulation. By focusing on GPR43 and GPR109A, the study addresses the gap in understanding how dietary components directly influence immune responses in the gut, offering a mechanistic explanation for fibre-induced homeostasis.

The significance of this line of work is evidenced by its substantial citation count of 1,540, indicating broad recognition within the scientific community. Furthermore, analysis of citing literature reveals that 100% of the classified citations originate from independent researchers, rather than the author's own network. This high degree of independent uptake suggests that the findings have been widely adopted and built upon by the broader field, underscoring the work's impact on advancing knowledge in gut immunology and metabolism.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 4

CORE PAPER

Metabolite-sensing receptors GPR43 and GPR109A facilitate dietary fibre-induced gut homeostasis through regulation of the inflammasome

2015 · 1,540 citations (GS)

Field-normalised: 1,200 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	The role of short-chain fatty acids in microbiota–gut–brain communication (2019)	KU Leuven	Belgium	—
2	Gut microbiota-derived metabolites as key actors in inflammatory bowel disease (2020)	Sorbonne Université	France	—
3	Complex regulatory effects of gut microbial short-chain fatty acids on immune tolerance and autoimmunity (2023)	—	—	Background

No.	Citing paper	Citing institution(s)	Country	S2
4	SCFA: mechanisms and functional importance in the gut (2021)	INRAE, AgroParisTech, Université Paris-Saclay	France	—

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
Sorbonne Université	France	SCImago #138	2
The First Affiliated Hospital of Guangdong Pharmaceutical University	PR China	SCImago #3509	1
Yale School of Public Health	United States	—	1
Jawaharlal Nehru University	India	SCImago #5148 · THE 801–1000 · QS =558	1
Lady Hardinge Medical College	India	SCImago #8879	1
Iran University of Medical Sciences	Iran	SCImago #2614 · THE 601–800	1
Thunderbird School of Global Management, Arizona State University	United States	—	1
Medical University of Bialystok	Poland	SCImago #2518 · THE 1201–1500	1
Université de Toulouse	France	SCImago #1059	1
INRAE, AgroParisTech, Université Paris-Saclay	France	—	1
University of Clermont Auvergne	France	SCImago #2678 · THE 1001–1200	1
North Carolina State University	United States	SCImago #484 · THE 301–350 · QS =272	1
Weill Cornell Medicine	United States	SCImago #220	1
University of Ferrara	Italy	SCImago #2059 · THE 501–600 · QS 951-1000	1
University of Toronto	Canada	SCImago #39 · THE 21 · QS 29	1

Geographic distribution of citing authors

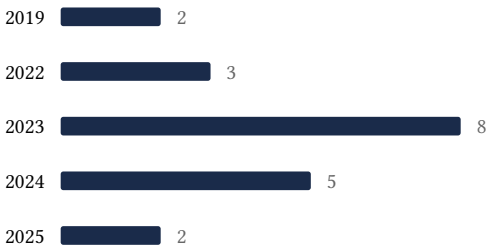
Country	Citing papers
China	5
United States	4
France	4
Italy	3
India	3
Iran	2
Belgium	2

Country	Citing papers
Canada	1
Iraq	1
Japan	1
Lithuania	1
Netherlands	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	Regulation of inflammatory responses by gut microbiota and chemoattractant receptor GPR43	9	Dhanasar — Prong 2 (well-positioned)
Contribution 2	The role of probiotics and prebiotics in inducing gut immunity	3	Dhanasar — Prong 2 (well-positioned)
Contribution 3	Metabolite-sensing receptors GPR43 and GPR109A facilitate dietary fibre-induced gut homeostasis through regulation of the inflammasome	4	Dhanasar — Prong 2 (well-positioned)