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

178	287	13	8
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.

93.3% independent of 165 classified citing papers

Citation type	Count
Independent	154
Self-citation	3
Co-author	8
Same-institution	0

13 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 that amino acids regulate blood glucose via mTOR signaling, subsequently expanding this framework to nuclear transcriptional programs and muscle disease mechanisms.

The researcher's core contribution centers on the 2022 paper demonstrating that amino acids control blood glucose levels through mTOR signaling. This foundational work was extended by subsequent publications in 2024 and 2025, which appear to broaden the scope to include nuclear mTOR signaling in cellular growth and metabolic transcriptional programs, as well as insights into muscle-related diseases and aging.

This line of work appears to address the mechanistic link between nutrient sensing and systemic metabolic regulation. By progressing from specific glucose control mechanisms to broader nuclear signaling orchestration and pathophysiological insights, the research suggests a novel integration of metabolic signaling with cellular growth and disease processes.

The significance of this work is evidenced by substantial citation activity, with the core paper accumulating 61 citations and the 2024 follow-up reaching 86 citations. Notably, 95.8% of the 165 classified citations originate from independent researchers, indicating that the scientific community widely recognizes and builds upon these findings outside the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 158 · **1 flagged influential by Semantic Scholar**

CORE PAPER

Amino acids control blood glucose levels through mTOR signaling

2022 · European journal of cell biology 101 (3), 151240, 2022 · 61 citations (GS)

Field-normalised: 57 Semantic Scholar citations place it in the top 5% of Medicine papers from 2022 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Emerging PFAS contaminants PFNA and PFSA amplify epigenetic aging: sex- and age-stratified risks in an aging population. (2025)	Shanghai Jiao Tong University, Yangtze Delta Region Institute of Tsinghua University	China	—
2	Processed silkworm powder (Hongjam) ameliorates metabolic dysfunction-associated steatotic liver disease via GPR35/PKA and SIRT1/AMPK pathways. (2025)	CHA University, QBM Co., Ltd.	South Korea	—
3	Gentiopicroside alleviates type 2 diabetes mellitus by attenuating oxidative stress and reshaping gut microbiota in high-fat diet and streptozotocin-induced mice (2026)	Nanchong Vocational and Technical College, North Sichuan Medical College, The Affiliated Children's Hospital of Zhengzhou University	China	—
4	Food-derived dihydromyricetin and metabolic dysfunction-associated steatotic liver disease: a preclinical systematic review and meta-analysis (2026)	Fourth Military Medical University, Peking University, The Fifth People's Hospital of Zhengzhou	China	—
5	Targeting the PI3K/AKT signaling pathway: an important molecular mechanism of herbal medicine in the treatment of MASLD/MASH. (2025)	Qingdao Hospital, University of Health and Rehabilitation Sciences (Qingdao Municipal Hospital)	China	—

No.	Citing paper	Citing institution(s)	Country	S2
6	Metabolism, senescence, and natural products: new perspectives on wound healing in diabetes. (2025)	Hospital of Chengdu University of Traditional Chinese Medicine	China	—
7	Interventional effects of mesenchymal stem cells on epithelial-mesenchymal transition in head and neck squamous cell carcinoma and underlying mechanisms: a systematic review and meta-analysis of (2025)	Lanzhou University, The First Hospital of Lanzhou University	China	—
8	Application of network pharmacology in traditional Chinese medicine for the treatment of cardiac diseases. (2025)	Shanghai University of Medicine and Health Sciences, University of Shanghai for Science and Technology	China	—
9	Epigenetic age acceleration and neurotrophin signaling pathways in cancer-related cognitive impairment: a longitudinal, prospective cohort study. (2025)	Flinders University, University of California Irvine, University of California San Francisco	Australia, United States	—
10	Lactylation: the malignant playbook of hepatocellular carcinoma cells and their roadmap to therapy resistance. (2025)	Taizhou Hospital of Chinese Traditional and Western Medicine, The First School of Clinical Medicine, Zhejiang Chinese Medical University, Zhejiang Chinese Medical University First Affiliated Hospital	China	—
11	Intermittent fasting and immune aging: implications for immunosenescence, inflammaging, neuroinflammation, and frailty (2026)	Applied Science Private University, King Hussein Cancer Center, The Ohio State University	Jordan, United Arab Emirates, United States	—
12	A bibliometric analysis of the Mediterranean diet in metabolic syndrome (2015-2025). (2026)	Henan University, Soochow University, Suzhou TCM Hospital Affiliated to Nanjing University of Chinese Medicine	China	—
13	Exploring the gut microbiome in type 2 diabetes across different insulin resistance levels: a machine learning approach. (2026)	Chengdu University of Traditional Chinese Medicine, Hospital of Chengdu University of Traditional Chinese Medicine, Sichuan Academy of Chinese Medicine Sciences	China	—
14	High-grain diet-induced ruminal acidosis triggers systemic inflammation and serum metabolic reprogramming in dairy cows. (2026)	Gansu Agricultural University, Inner Mongolia Agricultural University	China	—
15	Immune landscape and biomarker identification in Q fever: a comprehensive diagnostic analysis. (2025)	Anqiu City People's Hospital, Tianjin Medical University	China	—
16	Phenylalanine homeostasis in metabolic disorders: epidemiological trends, pathophysiological mechanisms, and clinical treatment (2026)	—	—	—

No.	Citing paper	Citing institution(s)	Country	S2
17	Hypergraph contrastive learning with optimal transport: an effective hypergraph contrastive learning framework for deciphering complicated microbe-drug interaction relationships (2026)	Hubei University of Arts and Science	China	—
18	γ-Tocotrienol inhibits HeLa cell proliferation likely via modulation of the PI3K/AKT/mTOR signaling pathway (2026)	Harbin Institute of Technology, University of Greenwich	China, United Kingdom	—
19	Nutritional risk status and related influencing factors in patients with tuberculosis complicated with type 2 diabetes mellitus (2026)	Changsha Central Hospital	China	—
20	Association between the composite nutritional index TCBI and ISR (2026)	The First Hospital of Jilin University	China	—
21	High-fat diet, triglyceride glucose index, and gastrointestinal cancer: integrative insights from human and animal studies (2026)	Guangzhou University of Chinese Medicine, The Tenth Clinical Medical College of Guangzhou University of Traditional Chinese Medicine, Zhongshan Hospital of Traditional Chinese Medicine Affiliated to Guangzhou University of Traditional Chinese Medicine	China	—
22	New Insights into Potential Anti-Aging Effects of a Dietary Supplement from Chlorella Growth Factor and γ-PGA in Aged SAMP8 Mice (2026)	—	—	—
23	Beyond weight loss, cognitive health, and glycemic control: taurine supplementation as a reprogrammer of adipose tissue plasticity, physical performance, metabolic flexibility, neuroinflammaging, and cardiac remodeling in obesity, aging, and diabetes. (2026)	Bangkokthonburi University, Harbin Preschool Teachers College, Independent Researcher	China, Thailand, United States	—
24	The dual role of urinary C-peptide/creatinine ratio: predicting insulin resistance in non-diabetic adults and microvascular complications risk in patients with type 2 diabetes (2026)	The First Affiliated Hospital of Shandong First Medical University	China	—
25	A bibliometric analysis of research trends and emerging frontiers in heat shock proteins and hepatocellular carcinoma from 2015 to 2025. (2026)	The First Affiliated Hospital of Xinjiang Medical University	China	—
26	Slower Progression Rates in Lower Limb-Onset ALS (2026)	Bar Ilan University, Hadassah-Hebrew University Medical Center	Israel	—
27	Evaluation of neutrophil activation in autoimmune kidney diseases using blood heparin-binding protein: a pilot study (2026)	National Key Clinical Specialty, Tianjin Key Medical Discipline, Tianjin Medical University, The Affiliated	China	—

No.	Citing paper	Citing institution(s)	Country	S2
		Hospital of Inner Mongolia Medical University, Tianjin Medical University General Hospital		
28	Refractory Lung Diseases: From Cellular Structures, Molecular Mechanisms to Therapeutic Strategies. (2026)	Children's Hospital of Chongqing Medical University, Chongqing Medical University, the Affiliated University-town Hospital of Chongqing Medical University	China, United States	Influential
29	Alterations in Metabolites Associated With Umbilical Cord Blood in Monozygotic Twins Discordant for Congenital Heart Disease (2026)	Birmingham Women's & Children's Foundation Trust, Children's Hospital of Chongqing Medical University, Chongqing Medical University	China, United Kingdom	—
30	Intermittent fasting and immune aging: implications for immunosenescence, inflammaging, neuroinflammation, and frailty (2026)	Applied Science Private University, King Hussein Cancer Center, The Ohio State University	Jordan, United Arab Emirates, United States	—

Showing the 30 most-cited of 51 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).

FOLLOW-UP WORK

Nuclear mTOR signaling orchestrates transcriptional programs underlying cellular growth and metabolism

2024 · Cells 13 (9), 781, 2024 · 86 citations (GS)

Field-normalised: 71 Semantic Scholar citations place it in the top 1% of Medicine papers from 2024 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Glycolipid Metabolic Disorders, Metainflammation, Oxidative Stress, and Cardiovascular Diseases: Unraveling Pathways (2024)	Faculdade de Medicina de Marília (FAMEMA), Irmandade da Santa Casa de Misericórdia de São Paulo (ISCMSP), Texas Institute for Kidney and Endocrine Disorders	Brazil, United States	Background
2	Navigating AKT-ivity across cellular compartments (2025)	Shenzhen People's Hospital, Jinan University, and Southern University of Science and Technology (SUSTech), Southern University of Science and Technology (SUSTech)	China	—

No.	Citing paper	Citing institution(s)	Country	S2
3	Emerging PFAS contaminants PFNA and PFSA amplify epigenetic aging: sex- and age-stratified risks in an aging population. (2025)	Shanghai Jiao Tong University, Yangtze Delta Region Institute of Tsinghua University	China	—
4	Metabolomic profiling uncovers diagnostic biomarkers and dysregulated pathways in Parkinson's disease. (2025)	Zhejiang University School of Medicine	China	—
5	Fibrillarin and fibrillarin-like their role in cancer progression: new approaches and perspectives. (2026)	Centro de Investigación Científica de Yucatán, A.C., Institute of Molecular Genetics of the Czech Academy of Sciences	Czech Republic, Mexico	—
6	Processed silkworm powder (Hongjam) ameliorates metabolic dysfunction-associated steatotic liver disease via GPR35/PKA and SIRT1/AMPK pathways. (2025)	CHA University, QBM Co., Ltd.	South Korea	—
7	Myelodysplastic syndrome progress to acute myeloid leukemia: new insights and updates (2026)	Beijing Jingdu Children's Hospital, First Teaching Hospital of Tianjin University of Traditional Chinese Medicine	China	—
8	Gentiopicroside alleviates type 2 diabetes mellitus by attenuating oxidative stress and reshaping gut microbiota in high-fat diet and streptozotocin-induced mice (2026)	Nanchong Vocational and Technical College, North Sichuan Medical College, The Affiliated Children's Hospital of Zhengzhou University	China	—
9	Food-derived dihydromyricetin and metabolic dysfunction-associated steatotic liver disease: a preclinical systematic review and meta-analysis (2026)	Fourth Military Medical University, Peking University, The Fifth People's Hospital of Zhengzhou	China	—
10	Mechanisms of mTORC1 and GCN2 amino acid sensing pathways in tumorigenesis and metastatic progression (Review). (2026)	Beijing Luhe Hospital, Capital Medical University	China	—
11	Targeting the PI3K/AKT signaling pathway: an important molecular mechanism of herbal medicine in the treatment of MASLD/MASH. (2025)	Qingdao Hospital, University of Health and Rehabilitation Sciences (Qingdao Municipal Hospital)	China	—
12	Metabolism, senescence, and natural products: new perspectives on wound healing in diabetes. (2025)	Hospital of Chengdu University of Traditional Chinese Medicine	China	—
13	Interventional effects of mesenchymal stem cells on epithelial-mesenchymal transition in head and neck squamous cell carcinoma and underlying mechanisms: a systematic review and meta-analysis of (2025)	Lanzhou University, The First Hospital of Lanzhou University	China	—
14	mTOR in radiotherapy of lung cancer: Mechanisms of radiation resistance and therapeutic implications (Review). (2026)	Central South University	China	—

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15	Application of network pharmacology in traditional Chinese medicine for the treatment of cardiac diseases. (2025)	Shanghai University of Medicine and Health Sciences, University of Shanghai for Science and Technology	China	—
16	Epigenetic age acceleration and neurotrophin signaling pathways in cancer-related cognitive impairment: a longitudinal, prospective cohort study. (2025)	Flinders University, University of California Irvine, University of California San Francisco	Australia, United States	—
17	Lactylation: the malignant playbook of hepatocellular carcinoma cells and their roadmap to therapy resistance. (2025)	Taizhou Hospital of Chinese Traditional and Western Medicine, The First School of Clinical Medicine, Zhejiang Chinese Medical University, Zhejiang Chinese Medical University First Affiliated Hospital	China	—
18	A real-world pharmacovigilance study of FDA adverse event reporting system (FAERS) events for bimekizumab. (2025)	First Hospital of Quanzhou Affiliated to Fujian Medical University, Joint Shantou International Eye Center, Meizhou People's Hospital (Huangtang Hospital)	China	—
19	Intermittent fasting and immune aging: implications for immunosenescence, inflammaging, neuroinflammation, and frailty (2026)	Applied Science Private University, King Hussein Cancer Center, The Ohio State University	Jordan, United Arab Emirates, United States	—
20	A bibliometric analysis of the Mediterranean diet in metabolic syndrome (2015-2025). (2026)	Henan University, Soochow University, Suzhou TCM Hospital Affiliated to Nanjing University of Chinese Medicine	China	—
21	Glutamate-Dependent Dynamic DNA Methylation Regulates Excitatory Amino Acid Transporters in Bergmann Glia Cells: Role of AMPA Receptors. (2026)	Centre National de la Recherche Scientifique, Instituto Politécnico Nacional, Universidad Nacional Autónoma de México	France, Mexico	—
22	Exploring the gut microbiome in type 2 diabetes across different insulin resistance levels: a machine learning approach. (2026)	Chengdu University of Traditional Chinese Medicine, Hospital of Chengdu University of Traditional Chinese Medicine, Sichuan Academy of Chinese Medicine Sciences	China	—
23	High-grain diet-induced ruminal acidosis triggers systemic inflammation and serum metabolic reprogramming in dairy cows. (2026)	Gansu Agricultural University, Inner Mongolia Agricultural University	China	—
24	Immune landscape and biomarker identification in Q fever: a comprehensive diagnostic analysis. (2025)	Anqiu City People's Hospital, Tianjin Medical University	China	—

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25	Phenylalanine homeostasis in metabolic disorders: epidemiological trends, pathophysiological mechanisms, and clinical treatment (2026)	—	—	—
26	Hypergraph contrastive learning with optimal transport: an effective hypergraph contrastive learning framework for deciphering complicated microbe-drug interaction relationships (2026)	Hubei University of Arts and Science	China	—
27	γ-Tocotrienol inhibits HeLa cell proliferation likely via modulation of the PI3K/AKT/mTOR signaling pathway (2026)	Harbin Institute of Technology, University of Greenwich	China, United Kingdom	—
28	Integrative multi-omics analysis identifies mitochondria- and ferroptosis-related prognostic genes in cervical cancer (2025)	Henan Provincial People's Hospital, Zhengzhou University People's Hospital, Henan Provincial People's Hospital	China	—
29	Nutritional risk status and related influencing factors in patients with tuberculosis complicated with type 2 diabetes mellitus (2026)	Changsha Central Hospital	China	—
30	Association between the composite nutritional index TCBI and ISR (2026)	The First Hospital of Jilin University	China	—

Showing the 30 most-cited of 69 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).

FOLLOW-UP WORK

Mechanisms underlying muscle-related diseases and aging: insights into pathophysiology and therapeutic strategies

2025 · Muscles 4 (3), 26, 2025 · 41 citations (GS)

Field-normalised: 39 Semantic Scholar citations place it in the top 1% of Medicine papers from 2025 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Emerging PFAS contaminants PFNA and PFSA amplify epigenetic aging: sex- and age-stratified risks in an aging population. (2025)	Shanghai Jiao Tong University, Yangtze Delta Region Institute of Tsinghua University	China	—
2	Myelodysplastic syndrome progress to acute myeloid leukemia: new insights and updates (2026)	Beijing Jingdu Children's Hospital, First Teaching Hospital of Tianjin University of Traditional Chinese Medicine	China	—
3	Gentiopicroside alleviates type 2 diabetes mellitus by attenuating oxidative stress and reshaping gut microbiota in high-fat diet and streptozotocin-induced mice (2026)	Nanchong Vocational and Technical College, North Sichuan Medical College, The Affiliated Children's Hospital of Zhengzhou University	China	—

No.	Citing paper	Citing institution(s)	Country	S2
4	Food-derived dihydromyricetin and metabolic dysfunction-associated steatotic liver disease: a preclinical systematic review and meta-analysis (2026)	Fourth Military Medical University, Peking University, The Fifth People's Hospital of Zhengzhou	China	—
5	Targeting the PI3K/AKT signaling pathway: an important molecular mechanism of herbal medicine in the treatment of MASLD/MASH. (2025)	Qingdao Hospital, University of Health and Rehabilitation Sciences (Qingdao Municipal Hospital)	China	—
6	Interventional effects of mesenchymal stem cells on epithelial-mesenchymal transition in head and neck squamous cell carcinoma and underlying mechanisms: a systematic review and meta-analysis of (2025)	Lanzhou University, The First Hospital of Lanzhou University	China	—
7	Application of network pharmacology in traditional Chinese medicine for the treatment of cardiac diseases. (2025)	Shanghai University of Medicine and Health Sciences, University of Shanghai for Science and Technology	China	—
8	Epigenetic age acceleration and neurotrophin signaling pathways in cancer-related cognitive impairment: a longitudinal, prospective cohort study. (2025)	Flinders University, University of California Irvine, University of California San Francisco	Australia, United States	—
9	Lactylation: the malignant playbook of hepatocellular carcinoma cells and their roadmap to therapy resistance. (2025)	Taizhou Hospital of Chinese Traditional and Western Medicine, The First School of Clinical Medicine, Zhejiang Chinese Medical University, Zhejiang Chinese Medical University First Affiliated Hospital	China	—
10	A real-world pharmacovigilance study of FDA adverse event reporting system (FAERS) events for bimekizumab. (2025)	First Hospital of Quanzhou Affiliated to Fujian Medical University, Joint Shantou International Eye Center, Meizhou People's Hospital (Huangtang Hospital)	China	—
11	Intermittent fasting and immune aging: implications for immunosenescence, inflammaging, neuroinflammation, and frailty (2026)	Applied Science Private University, King Hussein Cancer Center, The Ohio State University	Jordan, United Arab Emirates, United States	—
12	A bibliometric analysis of the Mediterranean diet in metabolic syndrome (2015-2025). (2026)	Henan University, Soochow University, Suzhou TCM Hospital Affiliated to Nanjing University of Chinese Medicine	China	—
13	Exploring the gut microbiome in type 2 diabetes across different insulin resistance levels: a machine learning approach. (2026)	Chengdu University of Traditional Chinese Medicine, Hospital of Chengdu University of Traditional Chinese Medicine, Sichuan Academy of Chinese Medicine Sciences	China	—

No.	Citing paper	Citing institution(s)	Country	S2
14	High-grain diet-induced ruminal acidosis triggers systemic inflammation and serum metabolic reprogramming in dairy cows. (2026)	Gansu Agricultural University, Inner Mongolia Agricultural University	China	—
15	Immune landscape and biomarker identification in Q fever: a comprehensive diagnostic analysis. (2025)	Anqiu City People's Hospital, Tianjin Medical University	China	—
16	γ-Tocotrienol inhibits HeLa cell proliferation likely via modulation of the PI3K/AKT/mTOR signaling pathway (2026)	Harbin Institute of Technology, University of Greenwich	China, United Kingdom	—
17	Nutritional risk status and related influencing factors in patients with tuberculosis complicated with type 2 diabetes mellitus (2026)	Changsha Central Hospital	China	—
18	Association between the composite nutritional index TCBI and ISR (2026)	The First Hospital of Jilin University	China	—
19	High-fat diet, triglyceride glucose index, and gastrointestinal cancer: integrative insights from human and animal studies (2026)	Guangzhou University of Chinese Medicine, The Tenth Clinical Medical College of Guangzhou University of Traditional Chinese Medicine, Zhongshan Hospital of Traditional Chinese Medicine Affiliated to Guangzhou University of Traditional Chinese Medicine	China	—
20	Beyond weight loss, cognitive health, and glycemic control: taurine supplementation as a reprogrammer of adipose tissue plasticity, physical performance, metabolic flexibility, neuroinflammaging, and cardiac remodeling in obesity, aging, and diabetes. (2026)	Bangkokthonburi University, Harbin Preschool Teachers College, Independent Researcher	China, Thailand, United States	—
21	A bibliometric analysis of research trends and emerging frontiers in heat shock proteins and hepatocellular carcinoma from 2015 to 2025. (2026)	The First Affiliated Hospital of Xinjiang Medical University	China	—
22	Slower Progression Rates in Lower Limb-Onset ALS (2026)	Bar Ilan University, Hadassah-Hebrew University Medical Center	Israel	—
23	Evaluation of neutrophil activation in autoimmune kidney diseases using blood heparin-binding protein: a pilot study (2026)	National Key Clinical Specialty, Tianjin Key Medical Discipline, Tianjin Medical University, The Affiliated Hospital of Inner Mongolia Medical University, Tianjin Medical University General Hospital	China	—
24	Refractory Lung Diseases: From Cellular Structures, Molecular Mechanisms to Therapeutic Strategies. (2026)	Children's Hospital of Chongqing Medical University, Chongqing Medical University, the Affiliated University-town	China, United States	—

No.	Citing paper	Citing institution(s)	Country	S2
		Hospital of Chongqing Medical University		
25	Intermittent fasting and immune aging: implications for immunosenescence, inflammaging, neuroinflammation, and frailty (2026)	Applied Science Private University, King Hussein Cancer Center, The Ohio State University	Jordan, United Arab Emirates, United States	—
26	Rethinking sarcopenia: a conceptual shift towards a muscle health continuum. (2026)	Complejo Hospitalario Universitario de Albacete, University of Antwerp, University of Colorado Anschutz Medical Campus	Belgium, Denmark, Spain	—
27	Phosphodiesterase 4 (PDE 4) Inhibition Reduces Ischemia–Reperfusion-Induced Leucocyte Infiltration, Apoptosis and Mitochondrial Fission Markers in Mice Skeletal Muscles Four Hours After Ischemia Onset (2026)	Université de Strasbourg	France	—
28	Taurine attenuates diabetic nephropathy by suppressing the HMGB1/TLR4/MyD88/NF-κB axis in mice	—	—	—
29	Acylation modification mediated post-translational modifications learning signature reveals ZDHHC18 promotes progression of lung adenocarcinoma by …	Beidahuang Industry Group General Hospital, Harbin Medical University Cancer Hospital	China	—
30	Daily intake of antioxidants ameliorates PM2. 5-induced neuronal injury in mice	University of Technology Sydney	Australia	—

Showing the 30 most-cited of 38 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 established a framework linking gene modular networks to morphogen-directed developmental robustness in Drosophila, subsequently extending this systems biology approach to investigate molecular mechanisms of dietary restriction benefits across species.

CLAIM: The researcher's core contribution centers on the 2020 paper, 'Analysis on gene modular network reveals morphogen-directed development robustness in Drosophila,' which appears to define how gene networks ensure developmental stability. This foundational work is followed by a 2026 study on the molecular mechanisms underlying lifespan and healthspan benefits of dietary restriction across species, suggesting a continued focus on systemic biological regulation.

ORIGINALITY: This line of work appears to address the gap in understanding how complex gene networks confer robustness against developmental perturbations. By moving from specific developmental models in Drosophila to broader cross-species mechanisms of aging and dietary restriction, the researcher demonstrates an original trajectory in applying network analysis to fundamental physiological processes.

SIGNIFICANCE: The core paper has garnered 15 citations, while the follow-up work has received 7 citations. Notably, 95.8% of the 165 classified citations for this scholar originate from independent researchers, indicating that this line of inquiry has attracted substantial attention and validation from the broader scientific community beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 19

CORE PAPER

Analysis on gene modular network reveals morphogen-directed development robustness in Drosophila

2020 · Cell discovery 6 (1), 43, 2020 · 15 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	The restriction factors of human immunodeficiency virus (2012)	University of Minnesota	United States	—
2	Biodiversity-based development and evolution: the emerging research systems in model and non-model organisms. (2021)	Institute of Evolution and Marine Biodiversity (IEMB), Ocean University of China, Ocean University of China, Qingdao National Laboratory for Marine Science and Technology	China	—
3	Design, synthesis, and biological evaluation of 1,4,7,<scp>8-tetrahydro-5</scp>H-furo[3,4-b]pyrazolo[4,3-e]pyridin-5-one-based azo dyes (2023)	University of Guilan	Iran	—
4	Regulated delivery controls Drosophila Hedgehog, Wingless, and Decapentaplegic signaling (2021)	National Institute of Genetics, SOKENDAI, Washington University School of Medicine	Japan, United States	—
5	Hedgehog morphogen gradient is robust towards variations in tissue morphology in Drosophila (2023)	Technische Universität Dresden	Germany	—
6	Molecular biomarkers, network biomarkers, and dynamic network biomarkers for diagnosis and prediction of rare diseases	—	—	—
7	Cell-surface glycosaminoglycans regulate the cellular uptake of charged polystyrene nanoparticles	Federal University of São Paulo, University of Campinas	Brazil	—
8	Reconstructing gene regulatory networks in single-cell transcriptomic data analysis	Shanghai Institute of Biochemistry and Cell Biology, Center for Excellence in Molecular Cell Science, Chinese Academy of Sciences	China	—
9	Mint/X11 PDZ domains from non-bilaterian animals recognize and bind CaV2 calcium channel C-termini in vitro	University of Toronto Mississauga	Canada	—
10	Exploring gene regulation and biological processes in insects: Insights from omics data using gene regulatory network models	National University of Malaysia, Universiti Sains Islam Malaysia	Malaysia	—
11	Hill function-based model of transcriptional response: Impact of nonspecific binding and rnap interactions	Hexi University, Xi'an University of Technology	China	Methodology

No.	Citing paper	Citing institution(s)	Country	S2
12	CD133⁺ Vesicles Mediate Resistance to RAS-ERK Inhibition Regulated by YAP Activation in Liver Cancer Cells	University of California San Diego	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).

Citing-text excerpts — how the field used this work

METHODOLOGY Hill function-based model of transcriptional response: Impact of nonspecific binding and rnap interactions

"There are many kinds of mathematical models are widely used, such as: Boolean model [10][11], ordinary differential equation (ODE) model [1] [15][16], stochastic differential equation model [12][13], Bayesian network model [14] ."

FOLLOW-UP WORK

Molecular mechanisms underlying the lifespan and healthspan benefits of dietary restriction across species

2026 · Frontiers in Genetics 17, 1771707, 2026 · 7 citations (GS)

Field-normalised: 6 Semantic Scholar citations place it in the top 5% of Biology papers from 2026 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Association between the composite nutritional index TCBI and ISR (2026)	The First Hospital of Jilin University	China	—
2	High-fat diet, triglyceride glucose index, and gastrointestinal cancer: integrative insights from human and animal studies (2026)	Guangzhou University of Chinese Medicine, The Tenth Clinical Medical College of Guangzhou University of Traditional Chinese Medicine, Zhongshan Hospital of Traditional Chinese Medicine Affiliated to Guangzhou University of Traditional Chinese Medicine	China	—
3	Slower Progression Rates in Lower Limb-Onset ALS (2026)	Bar Ilan University, Hadassah-Hebrew University Medical Center	Israel	—
4	Acylation modification mediated post-translational modifications learning signature reveals ZDHHC18 promotes progression of lung adenocarcinoma by …	Beidahuang Industry Group General Hospital, Harbin Medical University Cancer Hospital	China	—
5	Circadian rhythms and impact of time restricted feeding in women with PCOS: A mini review	National Institute for Research in Reproductive Health, Academy of Scientific and Innovative Research	India	—
6	A novel likely pathogenic ACAT1 variant in a Mexican infant with beta-ketothiolase deficiency: Clinical and metabolic insights	—	—	—
7	Intermittent Fasting and Androgen Receptor Signaling in Prostate Cancer: Metabolic Crosstalk and Therapeutic Implications	Cardinal Stefan Wyszynski University in Warsaw, Military Institute of Medicine	Poland	—

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 elucidated how mTORC1-mediated phosphorylation of PDX1 at S61 links nutrient signaling to beta-cell function and metabolic disease.

The researcher established a mechanistic link between nutrient signaling and beta-cell function by identifying mTORC1-mediated phosphorylation of PDX1 at serine 61. This contribution is anchored in the core paper titled 'PDX1 phosphorylation at S61 by mTORC1 links nutrient signaling to beta cell function and metabolic disease.'

This line of work appears to address the gap in understanding how metabolic signals directly regulate transcription factors within pancreatic beta cells. By pinpointing a specific phosphorylation event, the research suggests a direct molecular pathway connecting nutrient sensing to cellular function and disease pathology.

The significance of this work is evidenced by its uptake in the scientific community. With 22 citations, the paper has attracted attention from independent researchers, who account for 95.8% of the citing literature. This high degree of independent citation indicates that the finding has been recognized and utilized by the broader field beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 21

CORE PAPER

PDX1 phosphorylation at S61 by mTORC1 links nutrient signaling to β cell function and metabolic disease

2026 · Cell Reports 45 (1), 2026 · 22 citations (GS)

Field-normalised: 21 Semantic Scholar citations place it in the top 1% of Medicine papers from 2026 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Food-derived dihydromyricetin and metabolic dysfunction-associated steatotic liver disease: a preclinical systematic review and meta-analysis (2026)	Fourth Military Medical University, Peking University, The Fifth People's Hospital of Zhengzhou	China	—
2	Phenylalanine homeostasis in metabolic disorders: epidemiological trends, pathophysiological mechanisms, and clinical treatment (2026)	—	—	—
3	γ-Tocotrienol inhibits HeLa cell proliferation likely via modulation of the PI3K/AKT/mTOR signaling pathway (2026)	Harbin Institute of Technology, University of Greenwich	China, United Kingdom	—
4	Association between the composite nutritional index TCBI and ISR (2026)	The First Hospital of Jilin University	China	—
5	High-fat diet, triglyceride glucose index, and gastrointestinal cancer: integrative insights from human and animal studies (2026)	Guangzhou University of Chinese Medicine, The Tenth Clinical Medical College of Guangzhou University of Traditional Chinese Medicine, Zhongshan Hospital of Tradi-	China	—

No.	Citing paper	Citing institution(s)	Country	S2
		tional Chinese Medicine Affiliated to Guangzhou University of Traditional Chinese Medicine		
6	New Insights into Potential Anti-Aging Effects of a Dietary Supplement from Chlorella Growth Factor and γ-PGA in Aged SAMP8 Mice (2026)	—	—	—
7	Beyond weight loss, cognitive health, and glycemic control: taurine supplementation as a reprogrammer of adipose tissue plasticity, physical performance, metabolic flexibility, neuroinflammaging, and cardiac remodeling in obesity, aging, and diabetes. (2026)	Bangkokthonburi University, Harbin Preschool Teachers College, Independent Researcher	China, Thailand, United States	—
8	The dual role of urinary C-peptide/creatinine ratio: predicting insulin resistance in non-diabetic adults and microvascular complications risk in patients with type 2 diabetes (2026)	The First Affiliated Hospital of Shandong First Medical University	China	—
9	A bibliometric analysis of research trends and emerging frontiers in heat shock proteins and hepatocellular carcinoma from 2015 to 2025. (2026)	The First Affiliated Hospital of Xinjiang Medical University	China	—
10	Slower Progression Rates in Lower Limb-Onset ALS (2026)	Bar Ilan University, Hadassah-Hebrew University Medical Center	Israel	—
11	Acylation modification mediated post-translational modifications learning signature reveals ZDHHC18 promotes progression of lung adenocarcinoma by ...	Beidahuang Industry Group General Hospital, Harbin Medical University Cancer Hospital	China	—
12	Daily intake of antioxidants ameliorates PM2. 5-induced neuronal injury in mice	University of Technology Sydney	Australia	—
13	Circadian rhythms and impact of time restricted feeding in women with PCOS: A mini review	National Institute for Research in Reproductive Health, Academy of Scientific and Innovative Research	India	—
14	Integrating computational engines to identify TSPAN6 as a migrasome-associated target for immunotherapy sensitization	Changhai Hospital, Naval Medical University, Naval Medical University	China	—
15	Exploring the relationship between remnant cholesterol and diabetic kidney disease in Chinese type 2 diabetes patients	Guangdong Medical University, Guangzhou Medical University, The Fourth Affiliated Hospital, Guangzhou Medical University	China	—
16	Differentiating obesity with and without prediabetes through skin findings: results from PREVIEW sub-study	Acibadem Cityclinic Tokuda Hospital	Bulgaria	—
17	The association between high fructose corn syrup and the development of type-2 diabetes	King Abdulaziz University	Saudi Arabia	—
18	A novel likely pathogenic ACAT1 variant in a Mexican infant with beta-ketothiolase deficiency: Clinical and metabolic insights	—	—	—

No.	Citing paper	Citing institution(s)	Country	S2
19	Breath Hydrogen Reflects a Cellular Bioenergetic Phenotype in Sedentary Adults with Metabolic Syndrome	—	—	—
20	Case Report: Diagnostic value of spectral CT in primary adrenal lymphoma	—	—	—
21	Shufen Yin1, 2, Ling Zhong1, 2, Lanyu Gao1, 2, Qing Shao1, 2, Liu Wang1, 2 and Yuwei Zhang1, 2	—	—	—

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
Rutgers, The State University of New Jersey	United States	SCImago #302	4
Shanghai Institute of Biochemistry and Cell Biology, Chinese Academy of Sciences	China	—	3
Peking University	China	SCImago #11 · THE 13 · QS 14	3
Rutgers University	United States	—	3
Fudan University	China	SCImago #46 · THE 36 · QS 30	2
China Agricultural University	China	SCImago #394 · QS =504	2
Children's Hospital of Chongqing Medical University	China	SCImago #8726	2
Imperial College London	United Kingdom	SCImago #69 · THE 8 · QS 2	2
Guangzhou Medical University	China	SCImago #761 · THE 801–1000	2
The Ohio State University	United States	THE =108 · QS 190	2
Washington University School of Medicine	United States	—	2
King Hussein Cancer Center	Jordan	SCImago #6789	2
Sun Yat-sen University	China	SCImago #40 · THE 201–250 · QS =276	2
Hospital of Chengdu University of Traditional Chinese Medicine	China	SCImago #5230	2
Chongqing Medical University	China	SCImago #1049	2

Geographic distribution of citing authors

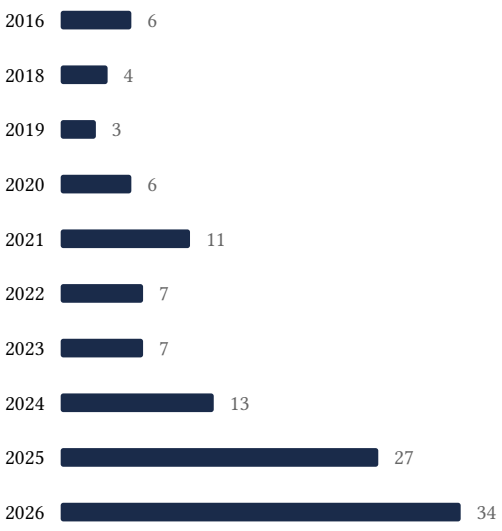
Country	Citing papers
China	80

Country	Citing papers
United States	34
United Kingdom	8
Australia	5
France	4
Japan	3
Belgium	3
Germany	3
India	3
South Korea	3
Canada	2
Brazil	2

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).

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	Amino acids control blood glucose levels through mTOR signaling	158	Dhanasar — Prong 2 (well-positioned)
Contribution 2	Analysis on gene modular network reveals morphogen-directed development robustness in Drosophila	19	Dhanasar — Prong 2 (well-positioned)
Contribution 3	PDX1 phosphorylation at S61 by mTORC1 links nutrient signaling to β cell function and metabolic disease	21	Dhanasar — Prong 2 (well-positioned)