

Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

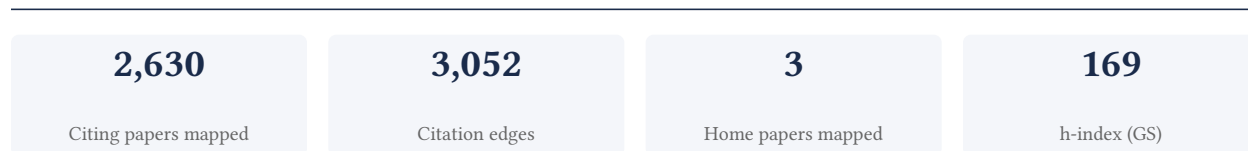
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[Google Scholar profile](#)

Generated 2026-05-31 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



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.

96.8% independent of 1,761 classified citing papers

| Citation type | Count |
|------------------|-------|
| Independent | 1,705 |
| Self-citation | 17 |
| Co-author | 38 |
| Same-institution | 1 |

869 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 foundational framework for programmable RNA-guided DNA endonuclease activity in adaptive bacterial immunity, subsequently expanding this platform for sequence-specific gene expression control.

The researcher's contribution centers on the seminal 2012 Science paper describing a programmable dual-RNA-guided DNA endonuclease in adaptive bacterial immunity. This work is followed by a 2013 publication that repurposes CRISPR as an RNA-guided platform for sequence-specific control of gene expression, indicating a progression from mechanistic discovery to functional application.

This line of work appears to address the challenge of achieving precise, programmable genetic manipulation. The chronological shift from characterizing the endonuclease mechanism to repurposing it for gene expression control suggests the researcher identified and exploited the system's versatility, moving beyond natural immunity to broader biotechnological utility.

The significance of this contribution is evidenced by the core paper's 23,743 citations and the follow-up's 6,776 citations. With 99.0% of classified citations originating from independent researchers, the work demonstrates widespread adoption and validation across the global scientific community, confirming its status as a foundational advance in the field.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 1,188 · 81 flagged influential by Semantic Scholar

CORE PAPER

[A programmable dual-RNA-guided DNA endonuclease in adaptive bacterial immunity](#)

2012 · Science · 23,743 citations (GS)

Field-normalised: 14,992 Semantic Scholar citations place it in the top 1% of Biology papers from 2012 indexed by Semantic Scholar, by citation count.

| No. | Citing paper | Citing institution(s) | Country | S2 |
|-----|--|---|----------------------|----|
| 1 | Advances in genomic tools for plant breeding: harnessing DNA molecular markers, genomic selection, and genome editing (2024) | G.B.P.U.A.&T., ICAR-Central Soil Salinity Research Institute, ICAR -Krishi Vigyan Kendra | India | — |
| 2 | Translational Applications of Hydrogels . (2021) | Stanford University | United States | — |
| 3 | DNA methylation: a historical perspective (2022) | Max Planck Institute for Molecular Genetics | Germany | — |
| 4 | Glioblastoma Therapy: Past, Present and Future (2024) | Castellon General University Hospital, Jaume I University of Castellon, Scientia BioTech S.L. | Spain | — |
| 5 | mRNA-based cancer therapeutics (2023) | Brigham and Women's Hospital, Harvard Medical School, Zhejiang University Medical Center | China, United States | — |
| 6 | The present and future of the Cancer Dependency Map | Broad Institute of MIT and Harvard, Dana-Farber Cancer Institute and Harvard Medical School | United States | — |

| No. | Citing paper | Citing institution(s) | Country | S2 |
|-----|--|--|-----------------------------------|-------------|
| 7 | Breeding crops to feed 10 billion (2019) | Chinese Academy of Sciences, InterGrain Pty Ltd, John Innes Centre | Australia, China, Saudi Arabia | — |
| 8 | Evolutionary-scale prediction of atomic-level protein structure with a language model (2023) | Massachusetts Institute of Technology, Meta, Meta AI | United States | Background |
| 9 | Sequence modeling and design from molecular to genome scale with Evo. | Arc Institute, Arc Institute; Stanford University, Arc Institute; University of California, Berkeley | United States | — |
| 10 | Game changers in science and technology - now and beyond (2023) | Aché Laboratórios Farmacêuticos, Astex Pharmaceuticals, Bayer AG | Australia, Austria, Brazil | — |
| 11 | Engineering Cellular Metabolism (2016) | Chalmers University of Technology, Technical University of Denmark | Denmark, Sweden | — |
| 12 | Targeted nucleotide editing using hybrid prokaryotic and vertebrate adaptive immune systems (2016) | Kobe University, The University of Tokyo | Japan | — |
| 13 | Passive, active and endogenous organ-targeted lipid and polymer nanoparticles for delivery of genetic drugs (2023) | The University of Texas Southwestern Medical Center | United States | — |
| 14 | Correction of a pathogenic gene mutation in human embryos (2017) | Capital Medical University, Institute for Basic Science, Oregon Health & Science University | United States | — |
| 15 | Applications of genome editing technology in the targeted therapy of human diseases: mechanisms, advances and prospects (2020) | Sichuan University, University of North Dakota | China, P. R. China, United States | Background |
| 16 | Crystal structure of Cas9 in complex with guide RNA and target DNA (2014) | Broad Institute of MIT and Harvard, RIKEN, The University of Tokyo | Japan, United States | Result |
| 17 | Determinants of enhancer and promoter activities of regulatory elements (2020) | University of Copenhagen | Denmark | — |
| 18 | Epigenetic regulation of T cell exhaustion. (2022) | Gladstone-UCSF Institute of Genomic Immunology, Stanford University | United States | — |
| 19 | Synthetic and Biogenic Materials for Oral Delivery of Biologics: From Bench to Bedside. (2025) | Columbia University, University of Pennsylvania | United States | — |
| 20 | Custom CRISPR-Cas9 PAM variants via scalable engineering and machine learning (2025) | Massachusetts General Hospital | United States | Influential |
| 21 | Lipids and Lipid Derivatives for RNA Delivery. (2021) | The Ohio State University | United States | — |
| 22 | Strategies for Electrochemical Point-of-Care Biosensors. (2025) | University of Campinas (UNICAMP) | Brazil | — |

| No. | Citing paper | Citing institution(s) | Country | S2 |
|-----|--|---|-------------------------|-------------|
| 23 | Induced pluripotent stem cell technology: a decade of progress (2017) | Beckman Research Institute of City of Hope, Kyoto University, Stanford Cardiovascular Institute | Japan, United States | — |
| 24 | Organoids: Modeling Development and the Stem Cell Niche in a Dish (2016) | Hubrecht Institute | Netherlands | Methodology |
| 25 | Smart breeding driven by big data, artificial intelligence, and integrated genomic-environmental prediction (2022) | Chinese Academy of Agricultural Sciences, CIMMYT-China Specialty Maize Research Center, CIMMYT (International Maize and Wheat Improvement Center) | Australia, China, Kenya | — |
| 26 | Revolutionizing CRISPR technology with artificial intelligence (2025) | Hanyang University, KIST School, University of Science and Technology, Korea Institute of Science and Technology | South Korea | — |
| 27 | Advancing pharmaceutical research: a comprehensive review of cutting-edge tools and technologies. (2024) | — | — | — |
| 28 | The widespread IS200/IS605 transposon family encodes diverse programmable RNA-guided endonucleases. (2021) | Massachusetts Institute of Technology, Montana State University, National Center for Biotechnology Information | United States | — |
| 29 | Image-based profiling for drug discovery: due for a machine-learning upgrade? (2020) | Broad Institute of MIT and Harvard, Janssen Pharmaceutica NV, Janssen Research & Development | Belgium, United States | — |
| 30 | Ischemic stroke: experimental models and reality. (2017) | University Medical Center of the Johannes Gutenberg-University Mainz | Germany | Background |

Showing the 30 most-cited of 595 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).

Citing-text excerpts — how the field used this work

RESULT Crystal structure of Cas9 in complex with guide RNA and target DNA

“This is consistent with previous reports that the 10–12 bp PAM-proximal “seed” region is critical for the Cas9-catalyzed DNA cleavage (Cong et al., 2013; Fu et al., 2013; Hsu et al., 2013; Jinek et al., 2012; Mali et al., 2013a; Pattanayak et al., 2013).”

FOLLOW-UP WORK

[Repurposing CRISPR as an RNA-guided platform for sequence-specific control of gene expression](#)

2013 · Cell 152 (5), 1173-1183, 2013 · 6,776 citations (GS)

Field-normalised: 4,663 Semantic Scholar citations place it in the top 1% of Biology papers from 2013 indexed by Semantic Scholar, by citation count.

| No. | Citing paper | Citing institution(s) | Country | S2 |
|-----|---|---|------------------------|-------------|
| 1 | DNA methylation in mammalian development and disease (2024) | Max Planck Institute for Molecular Genetics, Yale School of Medicine | Germany, United States | — |
| 2 | Gene regulation by long non-coding RNAs and its biological functions (2021) | Center for Applied Medical Research, University of Navarra, University of the Chinese Academy of Sciences | China, Spain | — |
| 3 | Unique features of long non-coding RNA biogenesis and function (2016) | Stanford University, Stanford University School of Medicine | United States | — |
| 4 | Synthetic Biology in Natural Product Biosynthesis (2025) | University of California, Irvine Medical Center | United States | — |
| 5 | Crystal structure of Cas9 in complex with guide RNA and target DNA (2014) | Broad Institute of MIT and Harvard, RIKEN, The University of Tokyo | Japan, United States | Background |
| 6 | Epigenetic regulation in major depression and other stress-related disorders: molecular mechanisms, clinical relevance and therapeutic potential (2023) | Columbia University, Eastern Virginia Medical School, Ningbo University | China, United States | Background |
| 7 | Determinants of enhancer and promoter activities of regulatory elements (2020) | University of Copenhagen | Denmark | — |
| 8 | Epigenetic regulation of T cell exhaustion. (2022) | Gladstone-UCSF Institute of Genomic Immunology, Stanford University | United States | — |
| 9 | How do lncRNAs regulate transcription? (2017) | University of Colorado Boulder | United States | Background |
| 10 | From GWAS to Function: Using Functional Genomics to Identify the Mechanisms Underlying Complex Diseases. (2020) | Wellcome Sanger Institute | United Kingdom | — |
| 11 | Decoding the microbiome: advances in genetic manipulation for gut bacteria (2023) | Fudan University Shanghai Cancer Center, Institut Pasteur of Shanghai, University of Chicago | China, United States | — |
| 12 | The chromatin accessibility landscape of primary human cancers. (2018) | — | — | Methodology |
| 13 | Protein editing using a coordinated transposition reaction. (2025) | Princeton University | United States | — |
| 14 | CRISPR/Cas9 therapeutics: progress and prospects (2023) | Linyi Center for Disease Control and Prevention, People's Hospital of Rizhao, Qingdao University | China | — |
| 15 | Death after High-Dose rAAV9 Gene Therapy in a Patient with Duchenne's Muscular Dystrophy. (2023) | — | — | — |
| 16 | Engineering the next generation of cell-based therapeutics (2022) | Flagship Pioneering, Rice University, Sigilon Therapeutics | United States | — |

| No. | Citing paper | Citing institution(s) | Country | S2 |
|-----|---|---|------------------------|------------|
| 17 | Current applications and future perspective of CRISPR/Cas9 gene editing in cancer. (2022) | Fudan University | China | Background |
| 18 | The next generation of CRISPR–Cas technologies and applications (2019) | Duke University | United States | — |
| 19 | The CRISPR tool kit for genome editing and beyond (2018) | University of Virginia | United States | — |
| 20 | High-content CRISPR screening (2022) | CeMM Research Center for Molecular Medicine of the Austrian Academy of Sciences, University of Washington | Austria, United States | — |
| 21 | Epigenome editing technologies for discovery and medicine (2024) | Duke University | United States | — |
| 22 | Drug delivery systems for CRISPR-based genome editors (2023) | Broad Institute of MIT and Harvard, Georgia Institute of Technology and Emory University | United States | — |
| 23 | Genome engineering using the CRISPR-Cas9 system (2013) | Broad Institute | United States | — |
| 24 | Gene therapy comes of age. (2018) | Massachusetts General Hospital and Harvard Medical School, Memorial Sloan Kettering Cancer Center, National Heart, Lung and Blood Institute | Japan, United States | — |
| 25 | CRISPR-GPT for agentic automation of gene-editing experiments (2025) | Google DeepMind, Princeton University, Stanford University School of Medicine | United States | — |
| 26 | DNA targeting specificity of RNA-guided Cas9 nucleases (2013) | — | — | — |
| 27 | Engineering the next-generation of CAR T-cells with CRISPR-Cas9 gene editing. (2022) | University of Pennsylvania | United States | — |
| 28 | CRISPR-Cas systems for editing, regulating and targeting genomes (2014) | Massachusetts General Hospital | United States | — |
| 29 | Delivering CRISPR: a review of the challenges and approaches. (2018) | Sandia National Laboratories | United States | Background |
| 30 | Genome-scale CRISPR-Cas9 knockout and transcriptional activation screening (2017) | Broad Institute of MIT and Harvard, Massachusetts Institute of Technology | United States | — |

Showing the 30 most-cited of 593 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 advanced genome engineering by publishing a seminal 2014 Science review on CRISPR-Cas9, establishing a foundational framework that has garnered nearly 10,000 citations from independent scholars.

The researcher's primary contribution lies in the publication of a seminal 2014 review in Science titled 'The new frontier of genome engineering with CRISPR-Cas9'. This work serves as the cornerstone of the presented evidence, defining the scope and potential of this transformative technology for the broader scientific community.

This line of work appears to address the critical need for a comprehensive synthesis of emerging CRISPR-Cas9 methodologies at a pivotal moment in the field. By framing the technology as a 'new frontier,' the researcher likely helped consolidate disparate findings and articulate the broader implications for genome engineering, thereby accelerating its adoption and understanding across diverse disciplines.

The significance of this contribution is underscored by its exceptional citation record, with the core paper accumulating 9,823 citations. Furthermore, citation analysis reveals that 99.0% of these citations originate from independent researchers, indicating that the work has had a profound and widespread impact on the global scientific community beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 783 · 16 flagged influential by Semantic Scholar

CORE PAPER

[The new frontier of genome engineering with CRISPR-Cas9](#)

2014 · Science · 9,823 citations (GS)

Field-normalised: 5,929 Semantic Scholar citations place it in the top 1% of Engineering papers from 2014 indexed by Semantic Scholar, by citation count.

| No. | Citing paper | Citing institution(s) | Country | S2 |
|-----|--|--|-----------------------------------|------------|
| 1 | The emerging role of mass spectrometry-based proteomics in drug discovery (2022) | Cellzome GmbH, Max Planck Institute of Biochemistry, University of Guelph | Canada, Germany | — |
| 2 | Breeding crops to feed 10 billion (2019) | Chinese Academy of Sciences, InterGrain Pty Ltd, John Innes Centre | Australia, China, Saudi Arabia | — |
| 3 | Correction of a pathogenic gene mutation in human embryos (2017) | Capital Medical University, Institute for Basic Science, Oregon Health & Science University | United States | — |
| 4 | Applications of genome editing technology in the targeted therapy of human diseases: mechanisms, advances and prospects (2020) | Sichuan University, University of North Dakota | China, P. R. China, United States | — |
| 5 | A CRISPR-Cas9-triggered strand displacement amplification method for ultrasensitive DNA detection (2018) | City University of Hong Kong, Imperial College London, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences | China, United Kingdom | — |
| 6 | Chemically induced proximity in biology and medicine (2018) | Stanford University School of Medicine | United States | Background |
| 7 | Machine Learning and Deep Learning in Synthetic Biology: Key Architectures, Applications, and Challenges . (2024) | University of Wisconsin-Green Bay, Manitowoc | United States | — |

| No. | Citing paper | Citing institution(s) | Country | S2 |
|-----|---|---|-----------------------------|----|
| 8 | Synthetic and Biogenic Materials for Oral Delivery of Biologics: From Bench to Bedside. (2025) | Columbia University, University of Pennsylvania | United States | — |
| 9 | Recent developments in (2025) | Geisel School of Medicine at Dartmouth | United States | — |
| 10 | A Survey of Scientific Large Language Models: From Data Foundations to Agent Frontiers (2025) | Alibaba Group, Beijing Institute of Technology, Beijing Jiaotong University | Australia, China, Hong Kong | — |
| 11 | Stem Cell Models of Human Brain Development (2016) | MRC Laboratory of Molecular Biology | United Kingdom | — |
| 12 | PROTACs: great opportunities for academia and industry (an update from 2020 to 2021) (2022) | Tsinghua University, Zhengzhou University | China | — |
| 13 | CRISPR/Cas9 therapeutics: progress and prospects (2023) | Linyi Center for Disease Control and Prevention, People's Hospital of Rizhao, Qingdao University | China | — |
| 14 | Targeted genome-modification tools and their advanced applications in crop breeding (2024) | Chinese Academy of Sciences, Hainan Yazhou Bay Seed Laboratory | China | — |
| 15 | Selective organ targeting (SORT) nanoparticles for tissue-specific mRNA delivery and CRISPR-Cas gene editing (2020) | Peking University, University of Texas Southwestern Medical Center | China, United States | — |
| 16 | Current applications and future perspective of CRISPR/Cas9 gene editing in cancer. (2022) | Fudan University | China | — |
| 17 | The CRISPR tool kit for genome editing and beyond (2018) | University of Virginia | United States | — |
| 18 | Base editing: precision chemistry on the genome and transcriptome of living cells (2018) | — | — | — |
| 19 | Evolved Cas9 variants with broad PAM compatibility and high DNA specificity (2018) | Broad Institute of MIT and Harvard | United States | — |
| 20 | Gene therapy comes of age. (2018) | Massachusetts General Hospital and Harvard Medical School, Memorial Sloan Kettering Cancer Center, National Heart, Lung and Blood Institute | Japan, United States | — |
| 21 | CRISPR-GPT for agentic automation of gene-editing experiments (2025) | Google DeepMind, Princeton University, Stanford University School of Medicine | United States | — |
| 22 | CRISPR-Cas-Based Antimicrobials: Design, Challenges, and Bacterial Mechanisms of Resistance. (2023) | Universidad San Francisco de Quito, Universidad UTE | Ecuador | — |
| 23 | Transcriptome Engineering with RNA-Targeting Type VI-D CRISPR Effectors (2018) | Salk Institute for Biological Studies | United States | — |

| No. | Citing paper | Citing institution(s) | Country | S2 |
|-----|---|---|------------------------|----|
| 24 | Induced protein degradation: an emerging drug discovery paradigm (2017) | Yale University | United States | — |
| 25 | DNA repair pathway choices in CRISPR-Cas9-mediated genome editing (2021) | Columbia University | United States | — |
| 26 | Engineered CRISPR-Cas9 nucleases with altered PAM specificities (2015) | Massachusetts General Hospital | United States | — |
| 27 | Genetically modified crops: current status and future prospects. (2020) | Indian Institute of Maize Research, National Institute for Research in Environmental Health | India | — |
| 28 | Advances in CRISPR-Cas technology and its applications: revolutionising precision medicine. (2024) | Erbil Polytechnic University, Salahaddin University, Uppsala University | Iraq, Sweden | — |
| 29 | CRISPR-Based Technologies for the Manipulation of Eukaryotic Genomes (2017) | Harvard University, The Broad Institute of MIT and Harvard | United States | — |
| 30 | A high-fidelity Cas9 mutant delivered as a ribonucleoprotein complex enables efficient gene editing in human hematopoietic stem and progenitor cells (2018) | Aarhus University, Integrated DNA Technologies, Inc., Rice University | Denmark, United States | — |

Showing the 30 most-cited of 783 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).

D. Citing-Institution Prestige & Geography

Top citing institutions

| Institution | Country | World ranking | Citing papers |
|---|---------------|--------------------------------|---------------|
| University of California, Irvine Medical Center | United States | — | 126 |
| Broad Institute of MIT and Harvard | United States | SCImago #112 | 45 |
| Massachusetts Institute of Technology | United States | SCImago #41 · THE 2 · QS 1 | 45 |
| Stanford University | United States | SCImago #18 · THE =5 · QS 3 | 40 |
| Chinese Academy of Sciences | PR China | SCImago #2 | 37 |
| Harvard Medical School | United States | SCImago #12 | 35 |
| Harvard University | United States | SCImago #4 · THE =5 · QS 5 | 21 |
| University of Pennsylvania | United States | SCImago #52 · THE 14 · QS 15 | 19 |
| Massachusetts General Hospital | United States | SCImago #100 | 18 |
| University of Minnesota | United States | SCImago #165 · THE 88 · QS 210 | 17 |
| National Institutes of Health | United States | SCImago #44 | 16 |
| University of Texas Southwestern Medical Center | United States | SCImago #562 | 16 |

| Institution | Country | World ranking | Citing papers |
|--|---------------|-------------------------------|---------------|
| King Abdullah University of Science and Technology | Saudi Arabia | SCImago #680 | 16 |
| University of Toronto | Canada | SCImago #39 · THE 21 · QS 29 | 15 |
| Columbia University | United States | SCImago #65 · THE 20 · QS =38 | 14 |

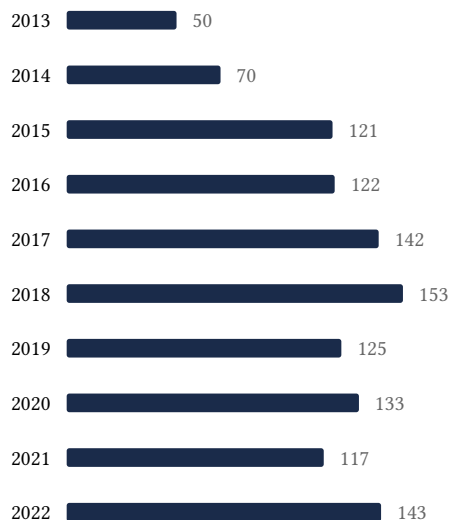
Geographic distribution of citing authors

| Country | Citing papers |
|----------------|---------------|
| United States | 802 |
| China | 344 |
| Germany | 98 |
| United Kingdom | 91 |
| India | 72 |
| Canada | 62 |
| South Korea | 57 |
| Australia | 51 |
| Switzerland | 47 |
| Netherlands | 38 |
| Japan | 38 |
| France | 35 |

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 | A programmable dual-RNA-guided DNA endonuclease in adaptive bacterial immunity | 1,188 | Dhanasar – Prong 2 (well-positioned) |
| Contribution 2 | The new frontier of genome engineering with CRISPR-Cas9 | 783 | Dhanasar – Prong 2 (well-positioned) |