

Citation Evidence Report

EB-1A Petition — Original Contributions of Major Significance

8 CFR § 204.5(h)(3)(v) · Criterion 5

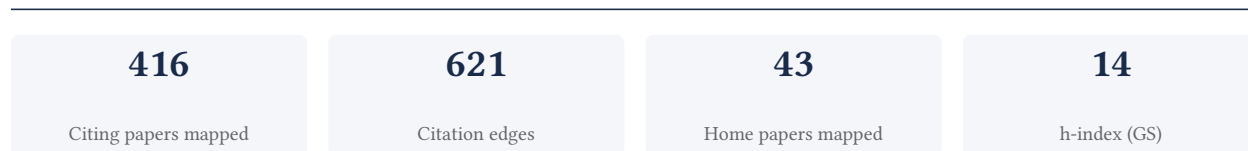
Typhanie Dumontet

University of Michigan

[Google Scholar profile](#)

Generated 2026-05-21 by CiteMap. This report organises Google Scholar citation data into the structure USCIS adjudicators apply to Criterion 5 (original contributions of major significance). 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.

94.2% independent of 103 classified citing papers

Citation type	Count
Independent	97
Self-citation	3
Co-author	0
Same-institution	3

313 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 critical role of PKA signaling in regulating adrenal cortex zonation, differentiation, and tumorigenesis, a framework subsequently expanded to include sexual dimorphism and human-specific developmental processes.

CLAIM: The researcher’s core contribution is the identification of Protein Kinase A (PKA) as a key regulator of adrenal cortex zonation and a suppressor of malignant tumor development, as demonstrated in their seminal 2016 paper. This work provides a foundational mechanistic understanding of how PKA inhibits WNT signaling to maintain tissue architecture and prevent cancer.

ORIGINALITY: This line of work appears to address the gap in understanding the molecular drivers of adrenal tissue organization. By first establishing PKA’s role in preventing tumorigenesis and then expanding this framework in 2018 to show how PKA drives reticularis differentiation and sexually dimorphic renewal, the researcher constructed a comprehensive model. The 2021 follow-up further contextualizes these findings within human-specific biology, suggesting a novel link between these signaling pathways and adrenarche.

SIGNIFICANCE: The impact of this research is evidenced by substantial citation counts, with the core 2016 paper accumulating 140 citations and the 2018 follow-up reaching 120. Notably, 94.2% of the citations for this scholar’s work originate from independent researchers, indicating that this framework has been widely adopted and validated by the broader scientific community beyond the researcher’s immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 35 · 1 flagged influential by Semantic Scholar

CORE PAPER

[PKA inhibits WNT signalling in adrenal cortex zonation and prevents malignant tumour development](#)

2016 · Nature communications 7 (1), 12751, 2016 · 140 citations (GS)

Field-normalised: 111 Semantic Scholar citations place it in the top 5% of Medicine papers from 2016 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Development and function of the fetal adrenal	University Hospital Inselspital, University of Bern	Switzerland	—
2	Multiomics analysis unveils the cellular ecosystem with clinical relevance in aldosterone-producing adenomas with KCNJ5 mutations	Kyoto University, Kyushu University, Osaka University	Japan	—
3	Primary aldosteronism and risk of cardiovascular outcomes: genome-wide association and Mendelian randomization study	Eurac Research, Hiroshima University, Institute of Medical Science The University of Tokyo	Italy, Japan	—
4	Genetic risk of primary aldosteronism and its contribution to hypertension: a cross-ancestry meta-analysis of genome-wide association studies	Hiroshima University, Hiroshima University Hospital, Kyoto University	Japan	—
5	Current status of molecular diagnostic approaches using liquid biopsy	Asahikawa Medical University, Tottori University	Japan	—
6	Salt-inducible kinase 2: an oncogenic signal transmitter and potential target for cancer therapy	Nanjing Medical University, The First Affiliated Hospital of Nanjing Medical University	China	—

No.	Citing paper	Citing institution(s)	Country	S2
7	Mutant GNAS limits tumor aggressiveness in established pancreatic cancer via antagonizing the KRAS-pathway	Asahikawa Medical University, Massachusetts General Hospital, Sapporo-Higashi Tokushukai Hospital	Japan, United States	—
8	Identification of conserved canonical marker genes in human and mouse adrenal glands using Visium spatial transcriptomics	Adam Mickiewicz University, Polish Academy of Sciences, Poznan University of Medical Sciences	Italy, Poland	—
9	Evaluating the role of aldosterone synthesis on adrenal cell fate	Queen Mary University of London, Universiti Kebangsaan Malaysia	Malaysia, United Kingdom	Background
10	Stem cells, self-renewal, and lineage commitment in the endocrine system	Boston Children's Hospital, Queen Mary University of London, University Health Network	Canada, United Kingdom, United States	Background
11	Structure of rosettes in the zona glomerulosa of human adrenal cortex	Fudan University	China	—
12	Complex and pleiotropic signaling pathways regulated by the secreted protein augurin	CNRS	France	Background
13	Effects of adipocyte-derived factors on the adrenal cortex	Tohoku University Graduate School of Medicine	Japan	—

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

[PKA signaling drives reticularis differentiation and sexually dimorphic adrenal cortex renewal](#)

2018 · JCI insight 3 (2), e98394, 2018 · 120 citations (GS)

Field-normalised: 81 Semantic Scholar citations place it in the top 10% of Biology papers from 2018 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Stem cells, self-renewal, and lineage commitment in the endocrine system	Boston Children's Hospital, Queen Mary University of London, University Health Network	Canada, United Kingdom, United States	Background
2	Single-nucleus and spatial transcriptome reveal adrenal homeostasis in normal and tumoural adrenal glands	Max Delbrück Center for Molecular Medicine, University Hospital Würzburg, University of Würzburg	Germany	—
3	The hypothalamic-pituitary-adrenal axis: development, programming actions of hormones, and maternal-fetal interactions	Colorado State University, University of Arizona College of Medicine	United States	—
4	Sexually dimorphic activation of innate anti-tumor immunity prevents adrenocortical carcinoma development	Université Clermont Auvergne	France	—

No.	Citing paper	Citing institution(s)	Country	S2
5	Variation in glucocorticoid sensitivity and the relation with obesity	Erasmus MC, University Medical Center Rotterdam, Leiden University Medical Center	Netherlands	Background
6	Adrenal lipoma formation via PI(3,4,5)P3/AKT-dependent transdifferentiation of adrenocortical cells into adipocytes	Institute of Science Tokyo, Juntendo University Graduate School of Medicine, Kobe University Graduate School of Medicine	Japan	—
7	Influence of β-catenin signaling on neurogenesis in neuropsychiatric disorders: Anxiety and depression	Alexandria University Hospitals, Cairo University	Egypt	Background
8	Prolactin as an adrenocorticotrophic hormone: Prolactin signalling is a conserved key regulator of sexually dimorphic adrenal gland function in health and disease	CNRS	France	—
9	Androgen receptor expression is required to ensure development of adult Leydig cells and to prevent development of steroidogenic cells with adrenal characteristics ...	Radboud University Medical Center, University of Edinburgh, University of Glasgow	Netherlands, United Kingdom	—
10	Androgen receptor is dispensable for X-zone regression in the female adrenal but regulates post-partum corticosterone levels and protects cortex integrity	University of Copenhagen, University of Edinburgh	Denmark, United Kingdom	Background
11	Update of genetic and molecular causes of adrenocortical hyperplasias causing Cushing syndrome	Cochin Institute, NIH	France, United States	Influential
12	The Transcriptome Trajectory Reveals Sex- and Age-Dependent Changes in the Mouse Adrenal Gland	Auburn University	United States	—
13	NR5A1 and cell population heterogeneity: Insights into developmental and functional disparities and regulatory mechanisms	Kurume University School of Medicine	Japan	—

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 is Influential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

FOLLOW-UP WORK

[Adrenal androgens, adrenarche, and zona reticularis: a human affair?](#)

2021 · Molecular and cellular endocrinology 528, 111239, 2021 · 46 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Harnessing the power of nutritional antioxidants against adrenal hormone imbalance-associated oxidative stress	Hemchandracharya North Gujarat University, Iowa State University, National Taipei University of Technology	India, Taiwan, United States	—

No.	Citing paper	Citing institution(s)	Country	S2
2	FSH is responsible for androgen deprivation therapy-associated atherosclerosis in mice by exaggerating endothelial inflammation and monocyte adhesion	Peking University, Peking University People's Hospital	China	Methodology
3	Revisiting the physiological role of androgens in women	Sapienza University of Rome	Italy	—
4	The Mongolian gerbil as a useful experimental model in reproductive biology	Federal University of Goiás, Federal University of Jataí, São Paulo State University	Brazil	—
5	Pediatric androgenetic alopecia: an updated review	Centro Hospitalar de Leiria, CUF Descobertas	Portugal	—
6	Adrenarche as a regulator of sensitivity to early adversity	University of Cambridge	United Kingdom	—
7	Elevated luteinizing hormone receptor signaling or selenium treatment leads to comparable changes in adrenal cortex histology and androgen-AR/ZIP9 signaling	Ankara University Faculty of Veterinary Medicine, Jagiellonian University, Jagiellonian University Medical College	Poland, Turkey	Background
8	Finding Early Biomarkers to Prevent Unfavorable Long-Term Health Outcomes after Premature Adrenarche: A Multicenter Prospective Cohort Study Protocol	Inselspital, Bern University Hospital, University of Eastern Finland	Finland, Switzerland	—
9	Aktuelle übersicht zur androgenetischen alopezie bei kindern und jugendlichen	Centro Hospitalar de Leiria, CUF Descobertas	Portugal	—

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 FSH is responsible for androgen deprivation therapy-associated atherosclerosis in mice by exaggerating endothelial inflammation and monocyte adhesion

“57 60 In our mouse models, Leu-administered or surgically castrated ApoE ^{-/-} mice had no difference with control mice in their serum TC, TG, HDL, and LDL levels or body weights.”

Contribution 2

Claim — Contribution 2

The researcher established EZH2 as a critical regulator of adrenal cortex function and adrenocortical carcinoma progression, linking epigenetic mechanisms to steroidogenic differentiation and disease.

CLAIM: The researcher's work identifies EZH2 as a pivotal factor in adrenocortical carcinoma and adrenal physiology. This contribution is anchored by the 2016 paper demonstrating EZH2 overexpression in carcinoma and its association with disease progression.

ORIGINALITY: This line of work appears to address the mechanistic gap between epigenetic regulation and adrenal pathology. By progressing from clinical association to molecular programming of steroidogenic differentiation and PKA signaling in 2018, and further exploring beta-catenin's role in zonation in 2021, the researcher systematically elucidates how EZH2 influences adrenal development and disease.

SIGNIFICANCE: The core paper has garnered 56 citations, while subsequent works have received 59 and 26 citations respectively. With 94.2% of citing papers originating from independent researchers, this indicates broad external validation and significant uptake of these findings within the scientific community.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 18

CORE PAPER

[EZH2 is overexpressed in adrenocortical carcinoma and is associated with disease progression](#)

2016 · Human Molecular Genetics 25 (13), 2789-2800, 2016 · 56 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Stem cells, self-renewal, and lineage commitment in the endocrine system	Boston Children's Hospital, Queen Mary University of London, University Health Network	Canada, United Kingdom, United States	Background
2	Enhancer of zeste homolog 2 (EZH2) in endocrine tumors: current knowledge and future directions	All India Institute of Medical Sciences, Henry Ford Hospital, Post Graduate Institute of Medical Education and Research (PGIMER)	India, United States	—
3	Wnt/β-catenin signaling pathway in the tumor progression of adrenocortical carcinoma	Third Hospital of Shanxi Medical University	China	—
4	Current status and future targeted therapy in adrenocortical cancer	National Institutes of Health	United States	Methodology
5	Identification of important invasion and proliferation related genes in adrenocortical carcinoma	Chanabasava Nilaya, Najran University, SET'S College of Pharmacy	India, Saudi Arabia	—
6	Downregulation of histone-lysine N-methyltransferase EZH2 inhibits cell viability and enhances chemosensitivity in lung cancer cells	Shanghai Pulmonary Hospital	China	Background
7	Screening and identification of key biomarkers in adrenocortical carcinoma based on bioinformatics analysis	the First Affiliated Hospital of Guangxi Medical University	China	—
8	The effects of mitotane and 1α,25-dihydroxyvitamin D3 on Wnt/beta-catenin signaling in human adrenocortical carcinoma cells	University of Padova	Italy	—
9	Mouse models recapitulating human adrenocortical tumors: what is lacking?	Clermont Université	France	Methodology

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 Current status and future targeted therapy in adrenocortical cancer

"performed a retrospective analysis of publicly available microarray data from Cochin and Michigan ACC cohorts (49)."

METHODOLOGY Mouse models recapitulating human adrenocortical tumors: what is lacking?

"In this study, we provided evidence that in the H295R human adrenal cancer cell line, EZH2 downregulation or pharmacological inhibition significantly decreased cell proliferation and aggressive behavior and induced apoptosis."

FOLLOW-UP WORK

Steroidogenic differentiation and PKA signaling are programmed by histone methyltransferase EZH2 in the adrenal cortex

2018 · Proceedings of the National Academy of Sciences 115 (52), E12265-E12274, 2018 · 59 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Stem cells, self-renewal, and lineage commitment in the endocrine system	Boston Children's Hospital, Queen Mary University of London, University Health Network	Canada, United Kingdom, United States	—
2	Wild-type bone marrow cells repopulate tissue resident macrophages and reverse the impacts of homozygous CSF1R mutation	Cardiff University, The University of Queensland, University of Queensland	Australia, China, United Kingdom	—
3	Dlk1 is a novel adrenocortical stem/progenitor cell marker that predicts malignancy in adrenocortical carcinoma	Boston Children's Hospital, G.V. (Sonny) Montgomery VA Medical Center, Imperial College London	Finland, Germany, Italy	—
4	Exploration of the potential of genomic editing in the treatment of congenital adrenal hyperplasia	Karolinska Institutet, The University of Sydney	Australia, Sweden	—
5	Rationale and roadmap for developing panels of hotspot cancer driver gene mutations as biomarkers of cancer risk	National Center for Toxicological Research, US Food and Drug Administration, US Food and Drug Administration	United States	—
6	Regulatory roles of alternative splicing at Ezh2 gene in mouse oocytes	Huazhong University of Science and Technology	China	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).

FOLLOW-UP WORK

β-catenin in adrenal zonation and disease

2021 · Molecular and cellular endocrinology 522, 111120, 2021 · 26 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Evaluating the role of aldosterone synthesis on adrenal cell fate	Queen Mary University of London, Universiti Kebangsaan Malaysia	Malaysia, United Kingdom	Background
2	Therapeutic strategies for adrenocortical carcinoma: integrating genomic insights, molecular targeting, and immunotherapy	Hubei University of Medicine, Jiangsu Province Hospital of Chinese Medicine, Affiliated Hospital of Nanjing University of Chinese Medicine, Ludwig Maximilians University (LMU) University Hospital Munich	China, Germany	—

No.	Citing paper	Citing institution(s)	Country	S2
3	A switch in letters leads to the “creation” of Eszett (ß)-catenin rather than beta (β)-catenin	Independent Researcher	Japan	—

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 is Influential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Contribution 3

Claim – Contribution 3

The researcher established a transgenic model linking P53/Rb inhibition to metastatic adrenocortical carcinoma, subsequently expanding this framework to investigate adrenal zonal development and sexual dimorphism in tumorigenesis.

The researcher’s core contribution rests on a 2017 study demonstrating that P53/Rb inhibition induces metastatic adrenocortical carcinomas in a preclinical transgenic model. This foundational work provides a mechanistic basis for understanding adrenal tumor progression. Building on this, the researcher published follow-up studies in 2019 and 2022 that appear to broaden the scope to include sexual dimorphism in adrenal development and the role of SUMO-specific protease 2 in glucocorticoid deficiency. This chronological progression suggests an original effort to connect genetic drivers of malignancy with broader developmental and hormonal regulatory mechanisms in the adrenal cortex. The significance of this line of work is evidenced by substantial independent uptake. With 94.2% of citations originating from independent researchers, the field appears to have widely adopted these models and concepts, validating the utility of the researcher’s approach to adrenal pathophysiology beyond their immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 15

CORE PAPER

[P53/Rb inhibition induces metastatic adrenocortical carcinomas in a preclinical transgenic model](#)

2017 · Oncogene 36 (31), 4445-4456, 2017 · 43 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Dlk1 is a novel adrenocortical stem/progenitor cell marker that predicts malignancy in adrenocortical carcinoma	Boston Children’s Hospital, G.V. (Sonny) Montgomery VA Medical Center, Imperial College London	Finland, Germany, Italy	—
2	Current status and future targeted therapy in adrenocortical cancer	National Institutes of Health	United States	Background
3	Identification of CENPM as a key gene driving adrenocortical carcinoma metastasis via physical interaction with immune checkpoint ligand FGL1	Affiliated Hospital of Shandong Second Medical University, Shandong Provincial Hospital Affiliated to Shandong First Medical University, Shandong Second Medical University	China	—
4	Innovative molecular targets for combatting metastasis in adrenocortical carcinoma	Sun Yat-sen Memorial Hospital, Sun Yat-sen University	China	—

No.	Citing paper	Citing institution(s)	Country	S2
5	Secreted frizzled-related proteins in angiogenesis: molecular mechanisms and clinical implications	Capital Medical University, Duke-NUS Medical School, Nanjing University of Chinese Medicine	China, Singapore	—
6	FLCN-Driven Functional Adrenal Cortical Carcinoma with High Mitotic Tumor Grade: Extending the Endocrine Manifestations of Birt-Hogg-Dubé Syndrome	Princess Margaret Cancer Centre, Princess Margaret Cancer Centre, University Health Network, University of Toronto, University Health Network	Canada	Background
7	Immunohistochemical analysis of the metabolic phenotype of adrenal cortical carcinoma	Ondokuz Mayıs University, Recep Tayyip Erdogan University, University Health Network	Canada, Turkey	Background
8	Serum antibodies against simian virus 40 large T antigen, the viral oncoprotein, in osteosarcoma patients	Rizzoli Orthopedic Institute, State Hospital, University of Ferrara	Italy, San Marino	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 is Influential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

FOLLOW-UP WORK

[Loss of SUMO-specific protease 2 causes isolated glucocorticoid deficiency by blocking adrenal cortical zonal transdifferentiation in mice](#)

2022 · Nature Communications 13 (1), 7858, 2022 · 12 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Accumulation of senescent cells in the adrenal gland induces hypersecretion of corticosterone via IL1β secretion	National Center for Geriatrics and Gerontology, Teikyo University School of Medicine	Japan	—
2	Pharmacological inhibition of SUMOylation with TAK-981 mimics genetic HypoSUMOylation in murine perigonadal white adipose tissue	Norwegian University of Science and Technology, Université Clermont Auvergne, University of Oslo	France, Norway	—
3	Loss of FUT8 in renal tubules ameliorates ischemia-reperfusion injury-induced renal interstitial inflammation transition to fibrosis via the TLR3–NF-κB pathway	The First Affiliated Hospital of Dalian Medical University	China	—
4	The multifaceted nature of SUMOylation in heart disease and its therapeutic potential	Medical College, Guangxi University, The Fourth Affiliated Hospital of Guangxi Medical University, The Second Affiliated Hospital of Guangxi Medical University	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 is Influential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

FOLLOW-UP WORK

Sexual dimorphism in adrenal gland development and tumorigenesis

2019 · Current Opinion in Endocrine and Metabolic Research 8, 60-65, 2019 · 19 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Prolactin as an adrenocorticotrophic hormone: Prolactin signalling is a conserved key regulator of sexually dimorphic adrenal gland function in health and disease	CNRS	France	—
2	Hippo-vgll3 signaling may contribute to sex differences in Atlantic salmon maturation age via contrasting adipose dynamics	University of Helsinki	Finland	—
3	The effects of combined intravenous cocaine and ethanol self-administration on the behavioral and amino acid profile of young adult rats	Universidad Complutense de Madrid, Universidad de Alcalá, Universidad Nacional de Educación a Distancia	Spain	—

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
Leiden University Medical Center	Netherlands	SCImago #412	10
Kyoto University	Japan	SCImago #375 · THE 61 · QS 57	4
University of Michigan	United States	SCImago #43 · THE 23 · QS 45	3
Université Clermont Auvergne	France	SCImago #2678	3
Queen Mary University of London	United Kingdom	SCImago #416 · THE =134 · QS =110	3
Osaka University	Japan	SCImago #546 · QS 91	3
University Health Network	Canada	SCImago #516	3
Boston Children's Hospital	United States	SCImago #415	2
CNRS	France	—	2
Asahikawa Medical University	Japan	SCImago #6776	2
University of Edinburgh	United Kingdom	SCImago #182 · THE 29 · QS 34	2
Tohoku University Graduate School of Medicine	Japan	—	2
University of Würzburg	Germany	THE 179	2
University of Padova	Italy	—	2
Kurume University School of Medicine	Japan	—	2

Geographic distribution of citing authors

Country	Citing papers
China	27
United States	22
France	13
Netherlands	12
Japan	12
Italy	8
United Kingdom	7
Germany	5
Finland	4
Canada	3
Switzerland	3
India	3

Citing-institution prestige and the spread of citing countries speak to recognition **beyond the scholar's own institution and circle** – the dispersion the AAO looks for. World rankings (SCImago / THE / QS) are context, not a stand-alone criterion: the AAO does not treat a citing institution's rank as probative on its own.

F. AAO Precedent Considerations

Pre-filing self-check (AAO denial patterns)

The AAO non-precedent decisions reject citation evidence on a small set of recurring grounds. Confirm the petition addresses each before filing:

- Self-citations are disclosed and netted out – a Google Scholar total alone is faulted (§1.1).
- Evidence is per individual article, not a body-of-work aggregate total (§1.2).
- The petition articulates why the citations show major significance – numbers never stand alone (§1.5).
- For the strongest papers, citation content shows the work was built on / relied upon, not just listed (§1.6, §2.2).
- Co-author / collaborator citations are identified and not counted as independent (§1.7).
- Recognition is shown beyond the scholar's own institution and circle (§1.8).
- Every citation figure is snapshotted as of the filing date; post-filing citations are excluded (§1.9).
- Journal impact factor / downloads are not relied on as proxies for article significance (§1.10, §1.12).
- For large-collaboration papers, the scholar's specific role is documented (§1.13).
- Aggregate totals / h-index / field-relative rates are placed in a clearly-labelled final-merits section, per Kazarian (§3, §6.1.7).

Disclaimer

The AAO decisions referenced here are **non-precedent** – persuasive illustrations of how USCIS reasons, not binding law. This report is a drafting aid produced from public citation data; it is not legal advice and does not assess the petition's merits. All analysis must be reviewed by qualified immigration counsel.

G. Citation Evidence Index

Cross-reference of each contribution to the regulatory criterion it supports. Counsel should map these to the petition's exhibit numbers.

Contribution	Core paper	Indep. cites	Supports
Contribution 1	PKA inhibits WNT signalling in adrenal cortex zonation and prevents malignant tumour development	35	8 CFR 204.5(h)(3)(v) – Criterion 5
Contribution 2	EZH2 is overexpressed in adrenocortical carcinoma and is associated with disease progression	18	8 CFR 204.5(h)(3)(v) – Criterion 5
Contribution 3	P53/Rb inhibition induces metastatic adrenocortical carcinomas in a preclinical transgenic model	15	8 CFR 204.5(h)(3)(v) – Criterion 5