

# George N Pavlakis

## List of Publications by Year in descending order

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92  
papers

5,487  
citations

76196

40  
h-index

85405

71  
g-index

95  
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95  
docs citations

95  
times ranked

6489  
citing authors

#	ARTICLE	IF	CITATIONS
1	Improved DNA: liposome complexes for increased systemic delivery and gene expression. <i>Nature Biotechnology</i> , 1997, 15, 647-652.	9.4	737
2	Efficient production and enhanced tumor delivery of engineered extracellular vesicles. <i>Biomaterials</i> , 2016, 105, 195-205.	5.7	286
3	Labeling Extracellular Vesicles for Nanoscale Flow Cytometry. <i>Scientific Reports</i> , 2017, 7, 1878.	1.6	260
4	Mosaic vaccines elicit CD8+ T lymphocyte responses that confer enhanced immune coverage of diverse HIV strains in monkeys. <i>Nature Medicine</i> , 2010, 16, 324-328.	15.2	211
5	Effect of Plasmid DNA Vaccine Design and In Vivo Electroporation on the Resulting Vaccine-Specific Immune Responses in Rhesus Macaques. <i>Journal of Virology</i> , 2007, 81, 5257-5269.	1.5	187
6	Circulating IL-15 exists as heterodimeric complex with soluble IL-15R $\alpha$ in human and mouse serum. <i>Blood</i> , 2012, 120, e1-e8.	0.6	156
7	Intracellular Interaction of Interleukin-15 with Its Receptor $\alpha$ during Production Leads to Mutual Stabilization and Increased Bioactivity. <i>Journal of Biological Chemistry</i> , 2008, 283, 4189-4199.	1.6	151
8	Containment of Simian Immunodeficiency Virus Infection in Vaccinated Macaques: Correlation with the Magnitude of Virus-Specific Pre- and Postchallenge CD4+ and CD8+ T Cell Responses. <i>Journal of Immunology</i> , 2002, 169, 4778-4787.	0.4	150
9	Systemic IL-15, IFN- $\beta$ , and IP-10/CXCL10 signature associated with effective immune response to SARS-CoV-2 in BNT162b2 mRNA vaccine recipients. <i>Cell Reports</i> , 2021, 36, 109504.	2.9	137
10	CTL Responses of High Functional Avidity and Broad Variant Cross-Reactivity Are Associated with HIV Control. <i>PLoS ONE</i> , 2012, 7, e29717.	1.1	117
11	Scalable, cGMP-compatible purification of extracellular vesicles carrying bioactive human heterodimeric IL-15/lactadherin complexes. <i>Journal of Extracellular Vesicles</i> , 2018, 7, 1442088.	5.5	106
12	DNA Vaccines Expressing Different Forms of Simian Immunodeficiency Virus Antigens Decrease Viremia upon SIVmac251 Challenge. <i>Journal of Virology</i> , 2005, 79, 8480-8492.	1.5	93
13	Potentiation of Simian Immunodeficiency Virus (SIV)-Specific CD4+ and CD8+ T Cell Responses by a DNA-SIV and NYVAC-SIV Prime/Boost Regimen. <i>Journal of Immunology</i> , 2001, 167, 7180-7191.	0.4	89
14	Comparative ability of plasmid IL-12 and IL-15 to enhance cellular and humoral immune responses elicited by a SIVgag plasmid DNA vaccine and alter disease progression following SHIV89.6P challenge in rhesus macaques. <i>Vaccine</i> , 2007, 25, 4967-4982.	1.7	89
15	Increased immune responses in rhesus macaques by DNA vaccination combined with electroporation. <i>Vaccine</i> , 2008, 26, 5223-5229.	1.7	88
16	Characterization and Favorable in Vivo Properties of Heterodimeric Soluble IL-15 $\alpha$ -IL-15R $\alpha$ Cytokine Compared to IL-15 Monomer*. <i>Journal of Biological Chemistry</i> , 2013, 288, 18093-18103.	1.6	88
17	Protection against simian/human immunodeficiency virus (SHIV) 89.6P in macaques after coimmunization with SHIV antigen and IL-15 plasmid. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 18648-18653.	3.3	86
18	A human immune data-informed vaccine concept elicits strong and broad T-cell specificities associated with HIV-1 control in mice and macaques. <i>Journal of Translational Medicine</i> , 2015, 13, 60.	1.8	84

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19	Therapeutic Vaccination with Simian Immunodeficiency Virus (SIV)-DNA+IL-12 or IL-15 Induces Distinct CD8 Memory Subsets in SIV-Infected Macaques. <i>Journal of Immunology</i> , 2008, 180, 7969-7979.	0.4	74
20	DNA and virus particle vaccination protects against acquisition and confers control of viremia upon heterologous simian immunodeficiency virus challenge. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 2975-2980.	3.3	71
21	A dose sparing effect by plasmid encoded IL-12 adjuvant on a SIVgag-plasmid DNA vaccine in rhesus macaques. <i>Vaccine</i> , 2006, 24, 4677-4687.	1.7	70
22	The p40 Subunit of Interleukin (IL)-12 Promotes Stabilization and Export of the p35 Subunit. <i>Journal of Biological Chemistry</i> , 2013, 288, 6763-6776.	1.6	70
23	Heterodimeric IL-15 delays tumor growth and promotes intratumoral CTL and dendritic cell accumulation by a cytokine network involving XCL1, IFN- $\beta$ , CXCL9 and CXCL10. , 2020, 8, e000599.		69
24	IL-12 DNA as molecular vaccine adjuvant increases the cytotoxic T cell responses and breadth of humoral immune responses in SIV DNA vaccinated macaques. <i>Human Vaccines and Immunotherapeutics</i> , 2012, 8, 1620-1629.	1.4	67
25	Enhanced Control of Pathogenic Simian Immunodeficiency Virus SIVmac239 Replication in Macaques Immunized with an Interleukin-12 Plasmid and a DNA Prime-Viral Vector Boost Vaccine Regimen. <i>Journal of Virology</i> , 2011, 85, 9578-9587.	1.5	63
26	Treatment with native heterodimeric IL-15 increases cytotoxic lymphocytes and reduces SHIV RNA in lymph nodes. <i>PLoS Pathogens</i> , 2018, 14, e1006902.	2.1	62
27	Improved Vaccine Protection from Simian AIDS by the Addition of Nonstructural Simian Immunodeficiency Virus Genes. <i>Journal of Immunology</i> , 2006, 176, 85-96.	0.4	61
28	DNA vaccination in rhesus macaques induces potent immune responses and decreases acute and chronic viremia after SIVmac251 challenge. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 15831-15836.	3.3	61
29	HIV/SIV DNA vaccine combined with protein in a co-immunization protocol elicits highest humoral responses to envelope in mice and macaques. <i>Vaccine</i> , 2013, 31, 3747-3755.	1.7	61
30	SIVmac239 MVA vaccine with and without a DNA prime, similar prevention of infection by a repeated dose SIVsmE660 challenge despite different immune responses. <i>Vaccine</i> , 2012, 30, 1737-1745.	1.7	60
31	Long-lasting humoral and cellular immune responses and mucosal dissemination after intramuscular DNA immunization. <i>Vaccine</i> , 2010, 28, 4827-4836.	1.7	59
32	Potent, Persistent Induction and Modulation of Cellular Immune Responses in Rhesus Macaques Primed with Ad5hr-Simian Immunodeficiency Virus (SIV) env/rev , gag , and/or nef Vaccines and Boosted with SIV gp120. <i>Journal of Virology</i> , 2003, 77, 8607-8620.	1.5	57
33	Ability of herpes simplex virus vectors to boost immune responses to DNA vectors and to protect against challenge by simian immunodeficiency virus. <i>Virology</i> , 2007, 357, 199-214.	1.1	54
34	SARS-CoV-2 antibody kinetics eight months from COVID-19 onset: Persistence of spike antibodies but loss of neutralizing antibodies in 24% of convalescent plasma donors. <i>European Journal of Internal Medicine</i> , 2021, 89, 87-96.	1.0	53
35	Protection Afforded by an HIV Vaccine Candidate in Macaques Depends on the Dose of SIVmac251 at Challenge Exposure. <i>Journal of Virology</i> , 2013, 87, 3538-3548.	1.5	52
36	Altered Response Hierarchy and Increased T-Cell Breadth upon HIV-1 Conserved Element DNA Vaccination in Macaques. <i>PLoS ONE</i> , 2014, 9, e86254.	1.1	47

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37	Boosting of SIV-specific immune responses in rhesus macaques by repeated administration of Ad5hrâ€“SIVenv/rev and Ad5hrâ€“SIVgag recombinants. <i>Vaccine</i> , 2003, 21, 4022-4035.	1.7	45
38	Secretion and Biological Activity of Short Signal Peptide IL-15 Is Chaperoned by IL-15 Receptor Alpha In Vivo. <i>Journal of Immunology</i> , 2009, 183, 3064-3072.	0.4	44
39	HIV-1 p24gag Derived Conserved Element DNA Vaccine Increases the Breadth of Immune Response in Mice. <i>PLoS ONE</i> , 2013, 8, e60245.	1.1	44
40	Co-immunization of DNA and Protein in the Same Anatomical Sites Induces Superior Protective Immune Responses against SHIV Challenge. <i>Cell Reports</i> , 2020, 31, 107624.	2.9	43
41	Long-Lasting Decrease in Viremia in Macaques Chronically Infected with Simian Immunodeficiency Virus SIVmac251 after Therapeutic DNA Immunization. <i>Journal of Virology</i> , 2007, 81, 1972-1979.	1.5	42
42	DNA and Protein Co-Immunization Improves the Magnitude and Longevity of Humoral Immune Responses in Macaques. <i>PLoS ONE</i> , 2014, 9, e91550.	1.1	42
43	Vaccine-Induced Linear Epitope-Specific Antibodies to Simian Immunodeficiency Virus SIVmac239 Envelope Are Distinct from Those Induced to the Human Immunodeficiency Virus Type 1 Envelope in Nonhuman Primates. <i>Journal of Virology</i> , 2015, 89, 8643-8650.	1.5	42
44	The Emerging Role of Convalescent Plasma in the Treatment of COVIDâ€“19. <i>HemaSphere</i> , 2020, 4, e409.	1.2	42
45	Control of Heterologous Simian Immunodeficiency Virus SIV <sub>smE660</sub> Infection by DNA and Protein Coimmunization Regimens Combined with Different Toll-Like-Receptor-4-Based Adjuvants in Macaques. <i>Journal of Virology</i> , 2018, 92, .	1.5	39
46	Antiâ€“SARS-CoV-2 Antibody Responses in Convalescent Plasma Donors Are Increased in Hospitalized Patients; Subanalyses of a Phase 2 Clinical Study. <i>Microorganisms</i> , 2020, 8, 1885.	1.6	39
47	HIV DNA Vaccine: Stepwise Improvements Make a Difference. <i>Vaccines</i> , 2014, 2, 354-379.	2.1	37
48	HIV-1 Conserved Elements p24CE DNA Vaccine Induces Humoral Immune Responses with Broad Epitope Recognition in Macaques. <i>PLoS ONE</i> , 2014, 9, e111085.	1.1	37
49	Efficient Systemic Expression of Bioactive IL-15 in Mice upon Delivery of Optimized DNA Expression Plasmids. <i>DNA and Cell Biology</i> , 2007, 26, 827-840.	0.9	36
50	Repeated DNA therapeutic vaccination of chronically SIV-infected macaques provides additional virological benefit. <i>Vaccine</i> , 2010, 28, 1962-1974.	1.7	34
51	DNA Prime-Boost Vaccine Regimen To Increase Breadth, Magnitude, and Cytotoxicity of the Cellular Immune Responses to Subdominant Gag Epitopes of Simian Immunodeficiency Virus and HIV. <i>Journal of Immunology</i> , 2016, 197, 3999-4013.	0.4	33
52	Heterodimeric IL15 Treatment Enhances Tumor Infiltration, Persistence, and Effector Functions of Adoptively Transferred Tumor-specific T Cells in the Absence of Lymphodepletion. <i>Clinical Cancer Research</i> , 2017, 23, 2817-2830.	3.2	32
53	Comparison of immune responses generated by optimized DNA vaccination against SIV antigens in mice and macaques. <i>Vaccine</i> , 2011, 29, 6742-6754.	1.7	28
54	Comparison of intradermal and intramuscular delivery followed by in vivo electroporation of SIV Env DNA in macaques. <i>Human Vaccines and Immunotherapeutics</i> , 2013, 9, 2081-2094.	1.4	26

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55	Therapeutic conserved elements (CE) DNA vaccine induces strong T-cell responses against highly conserved viral sequences during simian-human immunodeficiency virus infection. <i>Human Vaccines and Immunotherapeutics</i> , 2018, 14, 1820-1831.	1.4	25
56	Heterodimeric IL-15 in Cancer Immunotherapy. <i>Cancers</i> , 2021, 13, 837.	1.7	25
57	Sequential Analysis of Binding and Neutralizing Antibody in COVID-19 Convalescent Patients at 14 Months After SARS-CoV-2 Infection. <i>Frontiers in Immunology</i> , 2021, 12, 793953.	2.2	25
58	Preclinical evaluation of HIV-1 therapeutic ex vivo dendritic cell vaccines expressing consensus Gag antigens and conserved Gag epitopes. <i>Vaccine</i> , 2011, 29, 2110-2119.	1.7	24
59	Comparative analysis of SIV-specific cellular immune responses induced by different vaccine platforms in rhesus macaques. <i>Clinical Immunology</i> , 2014, 155, 91-107.	1.4	24
60	Posttranscriptional Control of HIV-1 and Other Retroviruses and Its Practical Applications. <i>Advances in Pharmacology</i> , 2007, 55, 161-197.	1.2	23
61	Optimized administration of hetIL-15 expands lymphocytes and minimizes toxicity in rhesus macaques. <i>Cytokine</i> , 2018, 108, 213-224.	1.4	23
62	Phase I study of single agent NIZ985, a recombinant heterodimeric IL-15 agonist, in adult patients with metastatic or unresectable solid tumors. , 2021, 9, e003388.		23
63	Emergence of Simian Immunodeficiency Virus-Specific Cytotoxic CD4+T Cells and Increased Humoral Responses Correlate with Control of Rebounding Viremia in CD8-Depleted Macaques Infected with Rev-Independent Live-Attenuated Simian Immunodeficiency Virus. <i>Journal of Immunology</i> , 2010, 185, 3348-3358.	0.4	22
64	Immunogenicity Testing of a Novel Engineered HIV-1 Envelope Gp140 DNA Vaccine Construct. <i>DNA and Cell Biology</i> , 2006, 25, 383-392.	0.9	21
65	Gp96SIVlg immunization induces potent polyepitope specific, multifunctional memory responses in rectal and vaginal mucosa. <i>Vaccine</i> , 2011, 29, 2619-2625.	1.7	20
66	Humoral immunity induced by mucosal and/or systemic SIV-specific vaccine platforms suggests novel combinatorial approaches for enhancing responses. <i>Clinical Immunology</i> , 2014, 153, 308-322.	1.4	20
67	Comparison of DNA vaccines producing HIV-1 Gag and LAMP/Gag chimera in rhesus macaques reveals antigen-specific T-cell responses with distinct phenotypes. <i>Vaccine</i> , 2009, 27, 4840-4849.	1.7	19
68	Early T Follicular Helper Cell Responses and Germinal Center Reactions Are Associated with Viremia Control in Immunized Rhesus Macaques. <i>Journal of Virology</i> , 2019, 93, .	1.5	19
69	Interleukin-15 response signature predicts RhCMV/SIV vaccine efficacy. <i>PLoS Pathogens</i> , 2021, 17, e1009278.	2.1	18
70	Differential effects of IL-15 on the generation, maintenance and cytotoxic potential of adaptive cellular responses induced by DNA vaccination. <i>Vaccine</i> , 2015, 33, 1188-1196.	1.7	17
71	HIV Env conserved element DNA vaccine alters immunodominance in macaques. <i>Human Vaccines and Immunotherapeutics</i> , 2017, 13, 2859-2871.	1.4	17
72	Live attenuated rubella vectors expressing SIV and HIV vaccine antigens replicate and elicit durable immune responses in rhesus macaques. <i>Retrovirology</i> , 2013, 10, 99.	0.9	15

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73	Gag and env conserved element CE DNA vaccines elicit broad cytotoxic T cell responses targeting subdominant epitopes of HIV and SIV Able to recognize virus-infected cells in macaques. Human Vaccines and Immunotherapeutics, 2018, 14, 2163-2177.	1.4	14
74	Vaccination with Vaxfectin <sup>®</sup> adjuvanted SIV DNA induces long-lasting humoral immune responses able to reduce SIVmac251 Viremia. Human Vaccines and Immunotherapeutics, 2013, 9, 2069-2080.	1.4	12
75	DNA is an efficient booster of dendritic cell-based vaccine. Human Vaccines and Immunotherapeutics, 2015, 11, 1927-1935.	1.4	12
76	DNA Vaccine <sup>®</sup> Induced Long-Lasting Cytotoxic T Cells Targeting Conserved Elements of Human Immunodeficiency Virus Gag Are Boosted Upon DNA or Recombinant Modified Vaccinia Ankara Vaccination. Human Gene Therapy, 2018, 29, 1029-1043.	1.4	12
77	A Phase II Study on the Use of Convalescent Plasma for the Treatment of Severe COVID-19- A Propensity Score-Matched Control Analysis. Microorganisms, 2021, 9, 806.	1.6	12
78	Control of SARS-CoV-2 infection after Spike DNA or Spike DNA+Protein co-immunization in rhesus macaques. PLoS Pathogens, 2021, 17, e1009701.	2.1	12
79	Distinct neutralization profile of spike variants by antibodies induced upon SARS-CoV-2 infection or vaccination. American Journal of Hematology, 2022, 97, E3.	2.0	12
80	Dose-dependent inhibition of Gag cellular immunity by Env in SIV/HIV DNA vaccinated macaques. Human Vaccines and Immunotherapeutics, 2015, 11, 2005-2011.	1.4	11
81	DNA vaccination by intradermal electroporation induces long-lasting immune responses in rhesus macaques. Journal of Medical Primatology, 2014, 43, 329-340.	0.3	10
82	Evaluation of chimeric antigen receptor T cell therapy in non-human primates infected with SHIV or SIV. PLoS ONE, 2021, 16, e0248973.	1.1	10
83	Improved flow-based method for HIV/SIV envelope-specific memory B-cell evaluation in rhesus macaques. Journal of Immunological Methods, 2014, 412, 78-84.	0.6	9
84	Recombinant rubella vectors elicit SIV Gag-specific T cell responses with cytotoxic potential in rhesus macaques. Vaccine, 2015, 33, 2167-2174.	1.7	9
85	A new step towards an HIV/AIDS vaccine. Lancet, The, 2018, 392, 192-194.	6.3	9
86	Long Lasting Control and Lack of Pathogenicity of the Attenuated Rev-Independent SIV in Rhesus Macaques. AIDS Research and Human Retroviruses, 2006, 22, 516-528.	0.5	8
87	Reduced Antibodies and Innate Cytokine Changes in SARS-CoV-2 BNT162b2 mRNA Vaccinated Transplant Patients With Hematological Malignancies. Frontiers in Immunology, 2022, 13, .	2.2	8
88	SIV antigen-specific effects on immune responses induced by vaccination with DNA electroporation and plasmid IL-12. Vaccine, 2013, 31, 4749-4758.	1.7	7
89	A Prime/Boost Vaccine Regimen Alters the Rectal Microbiome and Impacts Immune Responses and Viremia Control Post-Simian Immunodeficiency Virus Infection in Male and Female Rhesus Macaques. Journal of Virology, 2020, 94, .	1.5	7
90	Priming with DNA Expressing Trimeric HIV V1V2 Alters the Immune Hierarchy Favoring the Development of V2-Specific Antibodies in Rhesus Macaques. Journal of Virology, 2020, 95, .	1.5	5

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91	Kinetics of Nucleocapsid, Spike and Neutralizing Antibodies, and Viral Load in Patients with Severe COVID-19 Treated with Convalescent Plasma. <i>Viruses</i> , 2021, 13, 1844.	1.5	5
92	Evaluating the effects of second-dose vaccine-delay policies in European countries: A simulation study based on data from Greece. <i>PLoS ONE</i> , 2022, 17, e0263977.	1.1	5