Carlos Oscar S Sorzano

List of Publications by Year
in descending order

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57 papers	2,560 citations	236925 25 h-index	223800 46 g-index
60 all docs	60 docs citations	60 times ranked	3368 citing authors

#	Article	IF	Citations
1	DeepEMhancer: a deep learning solution for cryo-EM volume post-processing. Communications Biology, 2021, 4, 874.	4.4	561
2	BRANCHED1Promotes Axillary Bud Dormancy in Response to Shade inArabidopsisÂ Â. Plant Cell, 2013, 25, 834-850.	6.6	219
3	MonoRes: Automatic and Accurate Estimation of Local Resolution for Electron Microscopy Maps. Structure, 2018, 26, 337-344.e4.	3.3	179
4	Automatic local resolution-based sharpening of cryo-EM maps. Bioinformatics, 2020, 36, 765-772.	4.1	110
5	A Novel Poxvirus-Based Vaccine, MVA-CHIKV, Is Highly Immunogenic and Protects Mice against Chikungunya Infection. Journal of Virology, 2014, 88, 3527-3547.	3.4	101
6	Iterative Elastic 3D-to-2D Alignment Method Using Normal Modes for Studying Structural Dynamics of Large Macromolecular Complexes. Structure, 2014, 22, 496-506.	3.3	90
7	COVID-19 Vaccine Candidates Based on Modified Vaccinia Virus Ankara Expressing the SARS-CoV-2 Spike Protein Induce Robust T- and B-Cell Immune Responses and Full Efficacy in Mice. Journal of Virology, 2021, 95, .	3.4	78
8	Immunogenic Profiling in Mice of a HIV/AIDS Vaccine Candidate (MVA-B) Expressing Four HIV-1 Antigens and Potentiation by Specific Gene Deletions. PLoS ONE, 2010, 5, e12395.	2.5	74
9	A Candidate HIV/AIDS Vaccine (MVA-B) Lacking Vaccinia Virus Gene C6L Enhances Memory HIV-1-Specific T-Cell Responses. PLoS ONE, 2011, 6, e24244.	2.5	67
10	The HIV/AIDS Vaccine Candidate MVA-B Administered as a Single Immunogen in Humans Triggers Robust, Polyfunctional, and Selective Effector Memory T Cell Responses to HIV-1 Antigens. Journal of Virology, 2011, 85, 11468-11478.	3.4	63
11	Improving Adaptive and Memory Immune Responses of an HIV/AIDS Vaccine Candidate MVA-B by Deletion of Vaccinia Virus Genes (C6L and K7R) Blocking Interferon Signaling Pathways. PLoS ONE, 2013, 8, e66894.	2.5	60
12	Large T antigen on the simian virus 40 origin of replication: a 3D snapshot prior to DNA replication. EMBO Journal, 2003, 22, 6205-6213.	7.8	55
13	Characterization of transfer function, resolution and depth of field of a soft X-ray microscope applied to tomography enhancement by Wiener deconvolution. Biomedical Optics Express, 2016, 7, 5092.	2.9	53
14	DeepRes: a new deep-learning- and aspect-based local resolution method for electron-microscopy maps. IUCrJ, 2019, 6, 1054-1063.	2.2	45
15	A Vaccine Based on a Modified Vaccinia Virus Ankara Vector Expressing Zika Virus Structural Proteins Controls Zika Virus Replication in Mice. Scientific Reports, 2018, 8, 17385.	3.3	43
16	A Human Multi-Epitope Recombinant Vaccinia Virus as a Universal T Cell Vaccine Candidate against Influenza Virus. PLoS ONE, 2011, 6, e25938.	2.5	42
17	Deletion of the Vaccinia Virus N2L Gene Encoding an Inhibitor of IRF3 Improves the Immunogenicity of Modified Vaccinia Virus Ankara Expressing HIV-1 Antigens. Journal of Virology, 2014, 88, 3392-3410.	3.4	41
18	High, Broad, Polyfunctional, and Durable T Cell Immune Responses Induced in Mice by a Novel Hepatitis C Virus (HCV) Vaccine Candidate (MVA-HCV) Based on Modified Vaccinia Virus Ankara Expressing the Nearly Full-Length HCV Genome. Journal of Virology, 2013, 87, 7282-7300.	3.4	39

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19	Continuous flexibility analysis of SARS-CoV-2 spike prefusion structures. IUCrJ, 2020, 7, 1059-1069.	2.2	39
20	Removal of Vaccinia Virus Genes That Block Interferon Type I and II Pathways Improves Adaptive and Memory Responses of the HIV/AIDS Vaccine Candidate NYVAC-C in Mice. Journal of Virology, 2012, 86, 5026-5038.	3.4	38
21	Deep Consensus, a deep learning-based approach for particle pruning in cryo-electron microscopy. IUCrJ, 2018, 5, 854-865.	2.2	37
22	Distinct Roles of Vaccinia Virus NF-ÎºB Inhibitor Proteins A52, B15, and K7 in the Immune Response. Journal of Virology, 2017, 91, .	3.4	31
23	High Quality Long-Term CD4+ and CD8+ Effector Memory Populations Stimulated by DNA-LACK/MVA-LACK Regimen in Leishmania major BALB/c Model of Infection. PLoS ONE, 2012, 7, e38859.	2.5	30
24	Virological and Immunological Characterization of Novel NYVAC-Based HIV/AIDS Vaccine Candidates Expressing Clade C Trimeric Soluble gp140(ZM96) and Gag(ZM96)-Pol-Nef(CN54) as Virus-Like Particles. Journal of Virology, 2015, 89, 970-988.	3.4	30
25	Deletion of the Viral Anti-Apoptotic Gene F1L in the HIV/AIDS Vaccine Candidate MVA-C Enhances Immune Responses against HIV-1 Antigens. PLoS ONE, 2012, 7, e48524.	2.5	30
26	FSC-Q: a CryoEM map-to-atomic model quality validation based on the local Fourier shell correlation. Nature Communications, 2021, 12, 42.	12.8	28
27	NFÎºB activation by modified vaccinia virus as a novel strategy to enhance neutrophil migration and HIV-specific T-cell responses. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E1333-E1342.	7.1	26
28	Deletion of the Vaccinia Virus Gene A46R, Encoding for an Inhibitor of TLR Signalling, Is an Effective Approach to Enhance the Immunogenicity in Mice of the HIV/AIDS Vaccine Candidate NYVAC-C. PLoS ONE, 2013, 8, e74831.	2.5	25
29	XTEND: Extending the depth of field in cryo soft X-ray tomography. Scientific Reports, 2017, 7, 45808.	3.3	24
30	Hybrid Electron Microscopy Normal Mode Analysis with Scipion. Protein Science, 2020, 29, 223-236.	7.6	24
31	New vaccinia virus promoter as a potential candidate for future vaccines. Journal of General Virology, 2013, 94, 2771-2776.	2.9	22
32	Measurement of the modulation transfer function of an X-ray microscope based on multiple Fourier orders analysis of a Siemens star. Optics Express, 2015, 23, 9567.	3.4	21
33	Hybrid Electron Microscopy Normal Mode Analysis graphical interface and protocol. Journal of Structural Biology, 2014, 188, 134-141.	2.8	18
34	Modification of promoter spacer length in vaccinia virus as a strategy to control the antigen expression. Journal of General Virology, 2015, 96, 2360-2371.	2.9	14
35	Deletion of Vaccinia Virus A40R Gene Improves the Immunogenicity of the HIV-1 Vaccine Candidate MVA-B. Vaccines, 2020, 8, 70.	4.4	13
36	A Novel MVA-Based HIV Vaccine Candidate (MVA-gp145-GPN) Co-Expressing Clade C Membrane-Bound Trimeric gp145 Env and Gag-Induced Virus-Like Particles (VLPs) Triggered Broad and Multifunctional HIV-1-Specific T Cell and Antibody Responses. Viruses, 2019, 11, 160.	3.3	12

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37	Emerging Themes in CryoEMâ”€Single Particle Analysis Image Processing. Chemical Reviews, 2022, 122, 13915-13951.	47.7	12
38	Error analysis in the determination of the electron microscopical contrast transfer function parameters from experimental power Spectra. BMC Structural Biology, 2009, 9, 18.	2.3	11
39	Versatility of Approximating Single-Particle Electron Microscopy Density Maps Using Pseudoatoms and Approximation-Accuracy Control. BioMed Research International, 2016, 2016, 1-11.	1.9	11
40	A Prime/Boost PfCS14K^M/MVA-sPfCS^MVaccination Protocol Generates Robust CD8⁺T Cell and Antibody Responses to Plasmodium falciparum Circumsporozoite Protein and Protects Mice against Malaria. Vaccine Journal, 2017, 24, .	3.1	10
41	Removal of the C6 Vaccinia Virus Interferon-Î² Inhibitor in the Hepatitis C Vaccine Candidate MVA-HCV Elicited in Mice High Immunogenicity in Spite of Reduced Host Gene Expression. Viruses, 2018, 10, 414.	3.3	10
42	Adjuvant-like Effect of Vaccinia Virus 14K Protein: A Case Study with Malaria Vaccine Based on the Circumsporozoite Protein. Journal of Immunology, 2012, 188, 6407-6417.	0.8	9
43	Potent HIV-1-Specific CD8 T Cell Responses Induced in Mice after Priming with a Multiepitopic DNA-TMEP and Boosting with the HIV Vaccine MVA-B. Viruses, 2018, 10, 424.	3.3	9
44	Immune Modulation of NYVAC-Based HIV Vaccines by Combined Deletion of Viral Genes that Act on Several Signalling Pathways. Viruses, 2018, 10, 7.	3.3	9
45	Potent Anti-hepatitis C Virus (HCV) T Cell Immune Responses Induced in Mice Vaccinated with DNA-Launched RNA Replicons and Modified Vaccinia Virus Ankara-HCV. Journal of Virology, 2019, 93, .	3.4	9
46	Heterologous Combination of VSV-GP and NYVAC Vectors Expressing HIV-1 Trimeric gp145 Env as Vaccination Strategy to Induce Balanced B and T Cell Immune Responses. Frontiers in Immunology, 2019, 10, 2941.	4.8	9
47	Image Processing in Cryo-Electron Microscopy of Single Particles: The Power of Combining Methods. Methods in Molecular Biology, 2021, 2305, 257-289.	0.9	9
48	Optimized Hepatitis C Virus (HCV) E2 Glycoproteins and their Immunogenicity in Combination with MVA-HCV. Vaccines, 2020, 8, 440.	4.4	8
49	A Chimeric HIV-1 gp120 Fused with Vaccinia Virus 14K (A27) Protein as an HIV Immunogen. PLoS ONE, 2015, 10, e0133595.	2.5	8
50	Protein dynamics developments for the large scale and cryoEM: case study of ProDy 2.0. Acta Crystallographica Section D: Structural Biology, 2022, 78, 399-409.	2.3	7
51	Enhancement of HIV-1 Env-Specific CD8 T Cell Responses Using Interferon-Stimulated Gene 15 as an Immune Adjuvant. Journal of Virology, 2020, 95, .	3.4	6
52	The combined vaccination protocol of DNA/MVA expressing Zika virus structural proteins as efficient inducer of T and B cell immune responses. Emerging Microbes and Infections, 2021, 10, 1441-1456.	6.5	6
53	Neutrophil subtypes shape HIV-specific CD8 T-cell responses after vaccinia virus infection. Npj Vaccines, 2021, 6, 52.	6.0	6
54	Induction of Broad and Polyfunctional HIV-1-Specific T Cell Responses by the Multiepitopic Protein TMEP-B Vectored by MVA Virus. Vaccines, 2019, 7, 57.	4.4	5

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55	An MVA Vector Expressing HIV-1 Envelope under the Control of a Potent Vaccinia Virus Promoter as a Promising Strategy in HIV/AIDS Vaccine Design. Vaccines, 2019, 7, 208.	4.4	5
56	NYVAC vector modified by C7L viral gene insertion improves T cell immune responses and effectiveness against leishmaniasis. Virus Research, 2016, 220, 1-11.	2.2	4
57	The Envelope-Based Fusion Antigen GP120C14K Forming Hexamer-Like Structures Triggers T Cell and Neutralizing Antibody Responses Against HIV-1. Frontiers in Immunology, 2019, 10, 2793.	4.8	2