Philip J Santangelo

List of Publications by Year
in descending order

64	4,224	126708 33	118652 62
papers	citations	h-index	g-index

70	70	70	5373
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Dual FRET molecular beacons for mRNA detection in living cells. Nucleic Acids Research, 2004, 32, e57-e57.	6.5	339
2	High-throughput in vivo screen of functional mRNA delivery identifies nanoparticles for endothelial cell gene editing. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E9944-E9952.	3.3	196
3	Sustained virologic control in SIV ⁺ macaques after antiretroviral and Î± ₄ Î² ₇ antibody therapy. Science, 2016, 354, 197-202.	6.0	194
4	Computing in mammalian cells with nucleic acid strand exchange. Nature Nanotechnology, 2016, 11, 287-294.	15.6	190
5	Optimization of lipid nanoparticles for the delivery of nebulized therapeutic mRNA to the lungs. Nature Biomedical Engineering, 2021, 5, 1059-1068.	11.6	165
6	Whole-body immunoPET reveals active SIV dynamics in viremic and antiretroviral therapyâ€“treated macaques. Nature Methods, 2015, 12, 427-432.	9.0	153
7	Respiratory Syncytial Virus Induces Host RNA Stress Granules To Facilitate Viral Replication. Journal of Virology, 2010, 84, 12274-12284.	1.5	144
8	A Direct Comparison of in Vitro and in Vivo Nucleic Acid Delivery Mediated by Hundreds of Nanoparticles Reveals a Weak Correlation. Nano Letters, 2018, 18, 2148-2157.	4.5	138
9	Human Respiratory Syncytial Virus Nucleoprotein and Inclusion Bodies Antagonize the Innate Immune Response Mediated by MDA5 and MAVS. Journal of Virology, 2012, 86, 8245-8258.	1.5	136
10	Targeting Î±4Î²7 integrin reduces mucosal transmission of simian immunodeficiency virus and protects gut-associated lymphoid tissue from infection. Nature Medicine, 2014, 20, 1397-1400.	15.2	134
11	Treatment of influenza and SARS-CoV-2 infections via mRNA-encoded Cas13a in rodents. Nature Biotechnology, 2021, 39, 717-726.	9.4	130
12	Single moleculeâ€“sensitive probes for imaging RNA in live cells. Nature Methods, 2009, 6, 347-349.	9.0	129
13	Nanostructured Probes for RNA Detection in Living Cells. Annals of Biomedical Engineering, 2006, 34, 39-50.	1.3	127
14	Arginineâ€Rich Peptideâ€Based mRNA Nanocomplexes Efficiently Instigate Cytotoxic T Cell Immunity Dependent on the Amphipathic Organization of the Peptide. Advanced Healthcare Materials, 2017, 6, 1601412.	3.9	121
15	Visualization of early events in mRNA vaccine delivery in non-human primates via PETâ€“CT and near-infrared imaging. Nature Biomedical Engineering, 2019, 3, 371-380.	11.6	112
16	Correlated fluorescence microscopy and cryo-electron tomography of virus-infected or transfected mammalian cells. Nature Protocols, 2017, 12, 150-167.	5.5	109
17	Structural Analysis of Respiratory Syncytial Virus Reveals the Position of M2-1 between the Matrix Protein and the Ribonucleoprotein Complex. Journal of Virology, 2014, 88, 7602-7617.	1.5	100
18	Engineered mRNA-expressed antibodies prevent respiratory syncytial virus infection. Nature Communications, 2018, 9, 3999.	5.8	98

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19	Live-Cell Characterization and Analysis of a Clinical Isolate of Bovine Respiratory Syncytial Virus, Using Molecular Beacons. Journal of Virology, 2006, 80, 682-688.	1.5	89
20	Mild Innate Immune Activation Overrides Efficient Nanoparticleâ€Mediated RNA Delivery. Advanced Materials, 2020, 32, e1904905.	11.1	84
21	The NIH Somatic Cell Genome Editing program. Nature, 2021, 592, 195-204.	13.7	84
22	Mirror-enhanced super-resolution microscopy. Light: Science and Applications, 2016, 5, e16134-e16134.	7.7	74
23	Dynamics of filamentous viral RNPs prior to egress. Nucleic Acids Research, 2007, 35, 3602-3611.	6.5	72
24	Species-dependent in vivo mRNA delivery and cellular responses to nanoparticles. Nature Nanotechnology, 2022, 17, 310-318.	15.6	56
25	A Critical Phenylalanine Residue in the Respiratory Syncytial Virus Fusion Protein Cytoplasmic Tail Mediates Assembly of Internal Viral Proteins into Viral Filaments and Particles. MBio, 2012, 3, .	1.8	54
26	Characterizing exogenous mRNA delivery, trafficking, cytoplasmic release and RNAâ€“protein correlations at the level of single cells. Nucleic Acids Research, 2017, 45, e113-e113.	6.5	52
27	Quantifying RNAâ€“protein interactions in situ using modified-MTRIPs and proximity ligation. Nucleic Acids Research, 2013, 41, e12-e12.	6.5	44
28	Early treatment of SIV+ macaques with an Î±4Î²7 mAb alters virus distribution and preserves CD4+ T cells in later stages of infection. Mucosal Immunology, 2018, 11, 932-946.	2.7	43
29	Characterizing mRNA Interactions with RNA Granules during Translation Initiation Inhibition. PLoS ONE, 2011, 6, e19727.	1.1	42
30	Direct visualization of mRNA colocalization with mitochondria in living cells using molecular beacons. Journal of Biomedical Optics, 2005, 10, 044025.	1.4	40
31	Post-transcriptional Regulation of Programmed Cell Death 4 (PDCD4) mRNA by the RNA-binding Proteins Human Antigen R (HuR) and T-cell Intracellular Antigen 1 (TIA1). Journal of Biological Chemistry, 2015, 290, 3468-3487.	1.6	40
32	Molecular beacons and related probes for intracellular RNA imaging. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2010, 2, 11-19.	3.3	37
33	The Role of Integrin Î±4Î²7 in HIV Pathogenesis and Treatment. Current HIV/AIDS Reports, 2018, 15, 127-135.	1.1	36
34	Aerosol Delivery of Synthetic mRNA to Vaginal Mucosa Leads to Durable Expression of Broadly Neutralizing Antibodies against HIV. Molecular Therapy, 2020, 28, 805-819.	3.7	36
35	Augmented lipid-nanoparticle-mediated in vivo genome editing in the lungs and spleen by disrupting Cas9 activity in the liver. Nature Biomedical Engineering, 2022, 6, 157-167.	11.6	35
36	Dynamics of Native Î²â€actin mRNA Transport in the Cytoplasm. Traffic, 2011, 12, 1000-1011.	1.3	33

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37	Combining Single RNA Sensitive Probes with Subdiffraction-Limited and Live-Cell Imaging Enables the Characterization of Virus Dynamics in Cells. ACS Nano, 2014, 8, 302-315.	7.3	33
38	RSV glycoprotein and genomic RNA dynamics reveal filament assembly prior to the plasma membrane. Nature Communications, 2017, 8, 667.	5.8	31
39	Nanoparticle single-cell multiomic readouts reveal that cell heterogeneity influences lipid nanoparticle-mediated messenger RNA delivery. Nature Nanotechnology, 2022, 17, 871-879.	15.6	31
40	Native Immunogold Labeling of Cell Surface Proteins and Viral Glycoproteins for Cryo-Electron Microscopy and Cryo-Electron Tomography Applications. Journal of Histochemistry and Cytochemistry, 2015, 63, 780-792.	1.3	30
41	Evaluation of M2-like macrophage enrichment after diffuse traumatic brain injury through transient interleukin-4 expression from engineered mesenchymal stromal cells. Journal of Neuroinflammation, 2020, 17, 197.	3.1	30
42	Select gp120 V2 domain specific antibodies derived from HIV and SIV infection and vaccination inhibit gp120 binding to Î±4Î²7. PLoS Pathogens, 2018, 14, e1007278.	2.1	29
43	Probes for Intracellular RNA Imaging in Live Cells. Methods in Enzymology, 2012, 505, 383-399.	0.4	25
44	DNA uptake, intracellular trafficking and gene transfection after ultrasound exposure. Journal of Controlled Release, 2016, 234, 1-9.	4.8	24
45	Engineering monoclonal antibody-based contraception and multipurpose prevention technologiesâ€. Biology of Reproduction, 2020, 103, 275-285.	1.2	23
46	Unifying inÂvitro and inÂvivo IVT mRNA expression discrepancies in skeletal muscle via mechanotransduction. Biomaterials, 2018, 159, 189-203.	5.7	22
47	In vivo mRNA delivery to virus-specific T cells by light-induced ligand exchange of MHC class I antigen-presenting nanoparticles. Science Advances, 2022, 8, eabm7950.	4.7	22
48	In Vitro Transcribed mRNA Vaccines with Programmable Stimulation of Innate Immunity. Bioconjugate Chemistry, 2018, 29, 3072-3083.	1.8	21
49	TRAF6-IRF5 kinetics, TRIF, and biophysical factors drive synergistic innate responses to particle-mediated MPLA-CpG co-presentation. Science Advances, 2021, 7, .	4.7	21
50	LEM domainâ€“containing protein 3 antagonizes TGFÎ²â€“SMAD2/3 signaling in a stiffness-dependent manner in both the nucleus and cytosol. Journal of Biological Chemistry, 2018, 293, 15867-15886.	1.6	20
51	Single Molecule Sensitive Multivalent Polyethylene Glycol Probes for RNA Imaging. Bioconjugate Chemistry, 2010, 21, 483-488.	1.8	18
52	Proximity Ligation Assays for In Situ Detection of Innate Immune Activation: Focus on InÂVitro-Transcribed mRNA. Molecular Therapy - Nucleic Acids, 2019, 14, 52-66.	2.3	18
53	Strategies for modulating innate immune activation and protein production of in vitro transcribed mRNAs. Journal of Materials Chemistry B, 2016, 4, 1619-1632.	2.9	17
54	Polymerase-tagged respiratory syncytial virus reveals a dynamic rearrangement of the ribonucleocapsid complex during infection. PLoS Pathogens, 2020, 16, e1008987.	2.1	16

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55	Increased PIP3 activity blocks nanoparticle mRNA delivery. Science Advances, 2020, 6, eaba5672.	4.7	16
56	Characterization of mRNA-Cytoskeleton Interactions In Situ Using FMTRIP and Proximity Ligation. PLoS ONE, 2013, 8, e74598.	1.1	13
57	Imaging viral RNA using multiply labeled tetravalent RNA imaging probes in live cells. Methods, 2016, 98, 91-98.	1.9	10
58	Robust, Durable Gene Activation In Vivo via mRNA-Encoded Activators. ACS Nano, 2022, 16, 5660-5671.	7.3	10
59	Exploitation of Synthetic mRNA To Drive Immune Effector Cell Recruitment and Functional Reprogramming In Vivo. Journal of Immunology, 2019, 202, 608-617.	0.4	9
60	Respiratory syncytial virus M2-1 protein associates non-specifically with viral messenger RNA and with specific cellular messenger RNA transcripts. PLoS Pathogens, 2021, 17, e1009589.	2.1	6
61	Dynamics and origin of rebound viremia in SHIV-infected infant macaques following interruption of long-term ART. JCI Insight, 2021, 6, .	2.3	6
62	Can we observe changes in mRNA â€œstateâ€? Overview of methods to study mRNA interactions with regulatory proteins relevant in cancer related processes. Analyst, The, 2016, 141, 548-562.	1.7	5
63	A Novel Method to Quantify RNAâ€“Protein Interactions In Situ Using FMTRIP and Proximity Ligation. Methods in Molecular Biology, 2017, 1468, 155-170.	0.4	5
64	Quantification and Localization of Proteinâ€“RNA Interactions in Patient-Derived Archival Tumor Tissue. Cancer Research, 2019, 79, 5418-5431.	0.4	3