

# Sylvain V Costes

## List of Publications by Year in descending order

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83  
papers

6,027  
citations

126858

33  
h-index

76872

74  
g-index

91  
all docs

91  
docs citations

91  
times ranked

9280  
citing authors

#	ARTICLE	IF	CITATIONS
1	Automatic and Quantitative Measurement of Protein-Protein Colocalization in Live Cells. <i>Biophysical Journal</i> , 2004, 86, 3993-4003.	0.2	1,235
2	Double-Strand Breaks in Heterochromatin Move Outside of a Dynamic HP1a Domain to Complete Recombinational Repair. <i>Cell</i> , 2011, 144, 732-744.	13.5	470
3	The Transformation Suppressor Pdc4 Is a Novel Eukaryotic Translation Initiation Factor 4A Binding Protein That Inhibits Translation. <i>Molecular and Cellular Biology</i> , 2003, 23, 26-37.	1.1	446
4	Inhibition of Metastatic Outgrowth from Single Dormant Tumor Cells by Targeting the Cytoskeleton. <i>Cancer Research</i> , 2008, 68, 6241-6250.	0.4	377
5	Evidence for formation of DNA repair centers and dose-response nonlinearity in human cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 443-448.	3.3	242
6	Fundamental Biological Features of Spaceflight: Advancing the Field to Enable Deep-Space Exploration. <i>Cell</i> , 2020, 183, 1162-1184.	13.5	185
7	Spatiotemporal characterization of ionizing radiation induced DNA damage foci and their relation to chromatin organization. <i>Mutation Research - Reviews in Mutation Research</i> , 2010, 704, 78-87.	2.4	184
8	Comprehensive Multi-omics Analysis Reveals Mitochondrial Stress as a Central Biological Hub for Spaceflight Impact. <i>Cell</i> , 2020, 183, 1185-1201.e20.	13.5	161
9	Ionizing Radiation Predisposes Nonmalignant Human Mammary Epithelial Cells to Undergo Transforming Growth Factor $\beta$ -Induced Epithelial to Mesenchymal Transition. <i>Cancer Research</i> , 2007, 67, 8662-8670.	0.4	155
10	Mesenchymal cells stimulate capillary morphogenesis via distinct proteolytic mechanisms. <i>Experimental Cell Research</i> , 2010, 316, 813-825.	1.2	151
11	Imaging Features that Discriminate between Foci Induced by High- and Low-LET Radiation in Human Fibroblasts. <i>Radiation Research</i> , 2006, 165, 505-515.	0.7	142
12	Depletion of nuclear actin is a key mediator of quiescence in epithelial cells. <i>Journal of Cell Science</i> , 2011, 124, 123-132.	1.2	128
13	Image-Based Modeling Reveals Dynamic Redistribution of DNA Damage into Nuclear Sub-Domains. <i>PLoS Computational Biology</i> , 2007, 3, e155.	1.5	97
14	Understanding Cancer Development Processes after HZE-Particle Exposure: Roles of ROS, DNA Damage Repair and Inflammation. <i>Radiation Research</i> , 2015, 183, 1-26.	0.7	95
15	Human CD8+ T Cells Store RANTES in a Unique Secretory Compartment and Release It Rapidly after TcR Stimulation. <i>Immunity</i> , 2004, 20, 219-230.	6.6	93
16	Interplay between BRCA1 and RHAMM Regulates Epithelial Apicobasal Polarization and May Influence Risk of Breast Cancer. <i>PLoS Biology</i> , 2011, 9, e1001199.	2.6	91
17	Targeted and Nontargeted Effects of Ionizing Radiation That Impact Genomic Instability. <i>Cancer Research</i> , 2008, 68, 8304-8311.	0.4	84
18	Central Nervous System Responses to Simulated Galactic Cosmic Rays. <i>International Journal of Molecular Sciences</i> , 2018, 19, 3669.	1.8	76

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19	The Cell Cycle Timing of Centromeric Chromatin Assembly in <i>Drosophila</i> Meiosis Is Distinct from Mitosis Yet Requires CAL1 and CENP-C. <i>PLoS Biology</i> , 2012, 10, e1001460.	2.6	72
20	Vive la radiorésistance!: converging research in radiobiology and biogerontology to enhance human radioresistance for deep space exploration and colonization. <i>Oncotarget</i> , 2018, 9, 14692-14722.	0.8	62
21	Nuclear dynamics of radiation-induced foci in euchromatin and heterochromatin. <i>Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis</i> , 2013, 750, 56-66.	0.4	61
22	GeneLab: Omics database for spaceflight experiments. <i>Bioinformatics</i> , 2019, 35, 1753-1759.	1.8	60
23	Kinetic and Molecular Analysis of Nuclear Export Factor CRM1 Association with Its Cargo In Vivo. <i>Molecular and Cellular Biology</i> , 2005, 25, 728-739.	1.1	58
24	NASA GeneLab: interfaces for the exploration of space omics data. <i>Nucleic Acids Research</i> , 2021, 49, D1515-D1522.	6.5	56
25	In Vivo HIV-1 Rev Multimerization in the Nucleolus and Cytoplasm Identified by Fluorescence Resonance Energy Transfer. <i>Journal of Biological Chemistry</i> , 2004, 279, 50167-50175.	1.6	53
26	The composition and organization of <i>Drosophila</i> heterochromatin are heterogeneous and dynamic. <i>ELife</i> , 2016, 5, .	2.8	53
27	Role of Murine Leukemia Virus Nucleocapsid Protein in Virus Assembly. <i>Journal of Virology</i> , 2004, 78, 12378-12385.	1.5	52
28	Role of miR-2392 in driving SARS-CoV-2 infection. <i>Cell Reports</i> , 2021, 37, 109839.	2.9	52
29	Multi-omics analysis of multiple missions to space reveal a theme of lipid dysregulation in mouse liver. <i>Scientific Reports</i> , 2019, 9, 19195.	1.6	46
30	A systems biology approach to multicellular and multi-generational radiation responses. <i>Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis</i> , 2006, 597, 32-38.	0.4	44
31	Irradiation of Juvenile, but not Adult, Mammary Gland Increases Stem Cell Self-Renewal and Estrogen Receptor Negative Tumors. <i>Stem Cells</i> , 2014, 32, 649-661.	1.4	44
32	Phenotypic transition maps of 3D breast acini obtained by imaging-guided agent-based modeling. <i>Integrative Biology (United Kingdom)</i> , 2011, 3, 408.	0.6	41
33	<i>Drosophila</i> Histone Demethylase KDM4A Has Enzymatic and Non-enzymatic Roles in Controlling Heterochromatin Integrity. <i>Developmental Cell</i> , 2017, 42, 156-169.e5.	3.1	38
34	Î²1-integrin via NF-Î²B signaling is essential for acquisition of invasiveness in a model of radiation treated in situ breast cancer. <i>Breast Cancer Research</i> , 2013, 15, R60.	2.2	35
35	Global transcriptomic analysis suggests carbon dioxide as an environmental stressor in spaceflight: A systems biology GeneLab case study. <i>Scientific Reports</i> , 2018, 8, 4191.	1.6	35
36	Circulating miRNA Spaceflight Signature Reveals Targets for Countermeasure Development. <i>Cell Reports</i> , 2020, 33, 108448.	2.9	35

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37	A microRNA signature and TGF- $\beta$ 1 response were identified as the key master regulators for spaceflight response. PLoS ONE, 2018, 13, e0199621.	1.1	33
38	Persistence of $\gamma$ -H2AX and 53BP1 foci in proliferating and non-proliferating human mammary epithelial cells after exposure to $\beta$ -rays or iron ions. International Journal of Radiation Biology, 2011, 87, 696-710.	1.0	31
39	Combinatorial DNA Damage Pairing Model Based on X-Ray-Induced Foci Predicts the Dose and LET Dependence of Cell Death in Human Breast Cells. Radiation Research, 2014, 182, 273-281.	0.7	30
40	Evaluating biomarkers to model cancer risk post cosmic ray exposure. Life Sciences in Space Research, 2016, 9, 19-47.	1.2	30
41	Dose, LET and Strain Dependence of Radiation-Induced 53BP1 Foci in 15 Mouse Strains Ex Vivo Introducing Novel DNA Damage Metrics. Radiation Research, 2019, 192, 1.	0.7	30
42	Lack of Radiation Dose or Quality Dependence of Epithelial-to-Mesenchymal Transition (EMT) Mediated by Transforming Growth Factor $\beta$ 2. International Journal of Radiation Oncology Biology Physics, 2011, 79, 1523-1531.	0.4	29
43	A New Era for Space Life Science: International Standards for Space Omics Processing. Patterns, 2020, 1, 100148.	3.1	28
44	Characterizing the DNA Damage Response by Cell Tracking Algorithms and Cell Features Classification Using High-Content Time-Lapse Analysis. PLoS ONE, 2015, 10, e0129438.	1.1	28
45	Stochastic properties of radiation-induced DSB: DSB distributions in large scale chromatin loops, the HPRT gene and within the visible volumes of DNA repair foci. International Journal of Radiation Biology, 2008, 84, 916-929.	1.0	27
46	Optimizing radiotherapy protocols using computer automata to model tumour cell death as a function of oxygen diffusion processes. Scientific Reports, 2017, 7, 2280.	1.6	25
47	Quantification of radiation-induced DNA double strand break repair foci to evaluate and predict biological responses to ionizing radiation. NAR Cancer, 2021, 3, .	1.6	25
48	Promotion of variant human mammary epithelial cell outgrowth by ionizing radiation: an agent-based model supported by in vitro studies. Breast Cancer Research, 2010, 12, R11.	2.2	24
49	Densely Ionizing Radiation Acts via the Microenvironment to Promote Aggressive <i>Trp53</i> -Null Mammary Carcinomas. Cancer Research, 2014, 74, 7137-7148.	0.4	24
50	DNA Damage Baseline Predicts Resilience to Space Radiation and Radiotherapy. Cell Reports, 2020, 33, 108434.	2.9	24
51	GeneLab Database Analyses Suggest Long-Term Impact of Space Radiation on the Cardiovascular System by the Activation of FYN Through Reactive Oxygen Species. International Journal of Molecular Sciences, 2019, 20, 661.	1.8	23
52	Comparing Photon and Charged Particle Therapy Using DNA Damage Biomarkers. International Journal of Particle Therapy, 2018, 5, 15-24.	0.9	23
53	Ionizing radiation-induced risks to the central nervous system and countermeasures in cellular and rodent models. International Journal of Radiation Biology, 2021, 97, S132-S150.	1.0	20
54	NASA GeneLab RNA-seq consensus pipeline: Standardized processing of short-read RNA-seq data. IScience, 2021, 24, 102361.	1.9	20

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55	NASA GeneLab Project: Bridging Space Radiation Omics with Ground Studies. <i>Radiation Research</i> , 2018, 189, 553-559.	0.7	19
56	NASA GeneLab Platform Utilized for Biological Response to Space Radiation in Animal Models. <i>Cancers</i> , 2020, 12, 381.	1.7	18
57	Advancing the Integration of Biosciences Data Sharing to Further Enable Space Exploration. <i>Cell Reports</i> , 2020, 33, 108441.	2.9	17
58	53BP1 Repair Kinetics for Prediction of In Vivo Radiation Susceptibility in 15 Mouse Strains. <i>Radiation Research</i> , 2020, 194, 485-499.	0.7	15
59	Persistence of Gamma-H2AX Foci in Bronchial Cells Correlates with Susceptibility to Radiation Associated Lung Cancer in Mice. <i>Radiation Research</i> , 2018, 191, 67.	0.7	14
60	Rapid and automated multidimensional fluorescence microscopy profiling of 3D human breast cultures. <i>Integrative Biology (United Kingdom)</i> , 2013, 5, 681-691.	0.6	12
61	In Situ Detection of Complex DNA Damage Using Microscopy: A Rough Road Ahead. <i>Cancers</i> , 2020, 12, 3288.	1.7	12
62	Mammalian and Invertebrate Models as Complementary Tools for Gaining Mechanistic Insight on Muscle Responses to Spaceflight. <i>International Journal of Molecular Sciences</i> , 2021, 22, 9470.	1.8	12
63	Systems biology perspectives on the carcinogenic potential of radiation. <i>Journal of Radiation Research</i> , 2014, 55, i145-i154.	0.8	11
64	Simulating Space Radiation-Induced Breast Tumor Incidence Using Automata. <i>Radiation Research</i> , 2016, 186, 27-38.	0.7	11
65	Exploring the Effects of Spaceflight on Mouse Physiology using the Open Access NASA GeneLab Platform. <i>Journal of Visualized Experiments</i> , 2019, , .	0.2	10
66	Knowledge Network Embedding of Transcriptomic Data from Spaceflown Mice Uncovers Signs and Symptoms Associated with Terrestrial Diseases. <i>Life</i> , 2021, 11, 42.	1.1	10
67	RNAseq Analysis of Rodent Spaceflight Experiments Is Confounded by Sample Collection Techniques. <i>IScience</i> , 2020, 23, 101733.	1.9	8
68	Comparative Transcriptomics Identifies Neuronal and Metabolic Adaptations to Hypergravity and Microgravity in <i>Caenorhabditis elegans</i> . <i>IScience</i> , 2020, 23, 101734.	1.9	8
69	A Meta-Analysis of the Effects of High-LET Ionizing Radiations in Human Gene Expression. <i>Life</i> , 2021, 11, 115.	1.1	8
70	FAIRness and Usability for Open-access Omics Data Systems. <i>AMIA ... Annual Symposium proceedings</i> , 2018, 2018, 232-241.	0.2	7
71	Intensity-based signal separation algorithm for accurate quantification of clustered centrosomes in tissue sections. <i>Microscopy Research and Technique</i> , 2006, 69, 964-972.	1.2	6
72	Mathematical Modeling for DNA Repair, Carcinogenesis and Cancer Detection. <i>Cancer Metastasis - Biology and Treatment</i> , 2015, , 75-93.	0.1	6

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73	The Trp53 delta proline (Trp53 <sup>ΔP</sup> ) mouse exhibits increased genome instability and susceptibility to radiation-induced, but not spontaneous, tumor development. <i>Molecular Carcinogenesis</i> , 2016, 55, 1387-1396.	1.3	5
74	Genetic Background Modulates lncRNA-Coordinated Tissue Response to Low Dose Ionizing Radiation. <i>International Journal of Genomics</i> , 2015, 2015, 1-7.	0.8	4
75	Understanding the Health Impacts and Risks of Exposure to Radiation. , 2015, , 259-281.		4
76	Gadolinium-enhanced cardiac MR exams of human subjects are associated with significant increases in the DNA repair marker 53BP1, but not the damage marker $\gamma$ H2AX. <i>PLoS ONE</i> , 2018, 13, e0190890.	1.1	4
77	Considering Cell Proliferation to Optimize Detection of Radiation-Induced 53BP1 Positive Foci in 15 Mouse Strains Ex Vivo. <i>Radiation Research</i> , 2020, 195, 47-59.	0.7	4
78	Targeting Beta-1 Integrin Suppresses Invasive Recurrence in a 3-dimensional Model of Radiation Treated Ductal Carcinoma In situ. <i>International Journal of Radiation Oncology Biology Physics</i> , 2012, 84, S143.	0.4	3
79	Rad-Bio-App: a discovery environment for biologists to explore spaceflight-related radiation exposures. <i>Npj Microgravity</i> , 2021, 7, 15.	1.9	2
80	Depletion of nuclear actin is a key mediator of quiescence in epithelial cells. <i>Development (Cambridge)</i> , 2011, 138, e0207-e0207.	1.2	1
81	FRAP model to determine the bidirectional transport rate of GFP across the nuclear membrane and the mobile fraction in the cytoplasm and nucleus. , 2002, , .		0
82	Radiation quality and tissue-specific microenvironments following exposure to 1 GeV/AMU Fe. <i>Advances in Space Research</i> , 2002, 30, 865-870.	1.2	0
83	Broadcasting in the Airways: The Fifth Anniversary of the Radiation Research Podcast1. <i>Radiation Research</i> , 2012, 178, 99-100.	0.7	0