

# Charles Spillane

## List of Publications by Year in descending order

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116  
papers

6,715  
citations

87723

38  
h-index

66788

78  
g-index

125  
all docs

125  
docs citations

125  
times ranked

8710  
citing authors

#	ARTICLE	IF	CITATIONS
1	Draft genome sequence of pigeonpea ( <i>Cajanus cajan</i> ), an orphan legume crop of resource-poor farmers. <i>Nature Biotechnology</i> , 2012, 30, 83-89.	9.4	788
2	<i>miR-21</i> as a key regulator of oncogenic processes. <i>Biochemical Society Transactions</i> , 2009, 37, 918-925.	1.6	415
3	The Polycomb-group protein MEDEA regulates seed development by controlling expression of the MADS-box gene PHERES1. <i>Genes and Development</i> , 2003, 17, 1540-1553.	2.7	390
4	Maintenance of genomic imprinting at the <i>Arabidopsis medea</i> locus requires zygotic DDM1 activity. <i>Genes and Development</i> , 1999, 13, 2971-2982.	2.7	313
5	The emerging biofuel crop <i>Camelina sativa</i> retains a highly undifferentiated hexaploid genome structure. <i>Nature Communications</i> , 2014, 5, 3706.	5.8	295
6	High-Resolution Analysis of Parent-of-Origin Allelic Expression in the <i>Arabidopsis</i> Endosperm. <i>PLoS Genetics</i> , 2011, 7, e1002126.	1.5	237
7	Epigenetic Mechanisms Underlying Genomic Imprinting in Plants. <i>Annual Review of Plant Biology</i> , 2012, 63, 331-352.	8.6	196
8	Genome sequencing of the extinct Eurasian wild aurochs, <i>Bos primigenius</i> , illuminates the phylogeography and evolution of cattle. <i>Genome Biology</i> , 2015, 16, 234.	3.8	178
9	MicroRNA-9 Inhibition of Cell Proliferation and Identification of Novel miR-9 Targets by Transcriptome Profiling in Breast Cancer Cells. <i>Journal of Biological Chemistry</i> , 2012, 287, 29516-29528.	1.6	170
10	Apomixis technology development—“virgin births in farmers' fields?”. <i>Nature Biotechnology</i> , 2004, 22, 687-691.	9.4	168
11	Evolutionary origins of Brassicaceae specific genes in <i>Arabidopsis thaliana</i> . <i>BMC Evolutionary Biology</i> , 2011, 11, 47.	3.2	161
12	Positive darwinian selection at the imprinted MEDEA locus in plants. <i>Nature</i> , 2007, 448, 349-352.	13.7	144
13	Interaction of the <i>Arabidopsis</i> Polycomb group proteins FIE and MEA mediates their common phenotypes. <i>Current Biology</i> , 2000, 10, 1535-1538.	1.8	142
14	Diffusible Signal Factor-Dependent Cell-Cell Signaling and Virulence in the Nosocomial Pathogen <i>Stenotrophomonas maltophilia</i> . <i>Journal of Bacteriology</i> , 2007, 189, 4964-4968.	1.0	136
15	Genomic imprinting and seed development: endosperm formation with and without sex. <i>Current Opinion in Plant Biology</i> , 2001, 4, 21-27.	3.5	127
16	PHYTOCHROME B and HISTONE DEACETYLASE 6 Control Light-Induced Chromatin Compaction in <i>Arabidopsis thaliana</i> . <i>PLoS Genetics</i> , 2009, 5, e1000638.	1.5	123
17	Comparative Transcriptome Analysis of Two <i>Ascophyllum nodosum</i> Extract Biostimulants: Same Seaweed but Different. <i>Journal of Agricultural and Food Chemistry</i> , 2016, 64, 2980-2989.	2.4	121
18	Evolutionary origins of the endosperm in flowering plants. <i>Genome Biology</i> , 2002, 3, reviews1026.1.	13.9	105

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19	Genomic imprinting, methylation and molecular evolution of maize Enhancer of zeste (Mez) homologs. <i>Plant Journal</i> , 2007, 49, 325-337.	2.8	97
20	Marker-trait association analysis of functional gene markers for provitamin A levels across diverse tropical yellow maize inbred lines. <i>BMC Plant Biology</i> , 2013, 13, 227.	1.6	93
21	Smallholder Farmers and Climate Smart Agriculture: Technology and Labor-productivity Constraints amongst Women Smallholders in Malawi. <i>Gender, Technology and Development</i> , 2016, 20, 117-148.	0.8	93
22	Apomixis in agriculture: the quest for clonal seeds. <i>Sexual Plant Reproduction</i> , 2001, 14, 179-187.	2.2	88
23	Genome-wide identification of novel microRNAs and their target genes in the human parasite <i>Schistosoma mansoni</i> . <i>Genomics</i> , 2011, 98, 96-111.	1.3	83
24	Rumen Microbiome Composition Is Altered in Sheep Divergent in Feed Efficiency. <i>Frontiers in Microbiology</i> , 2020, 11, 1981.	1.5	72
25	6 Genomic imprinting during seed development. <i>Advances in Genetics</i> , 2002, 46, 165-214.	0.8	71
26	Reduction in nutritional quality and growing area suitability of common bean under climate change induced drought stress in Africa. <i>Scientific Reports</i> , 2018, 8, 16187.	1.6	67
27	Agroforestry contributions to smallholder farmer food security in Indonesia. <i>Agroforestry Systems</i> , 2021, 95, 1109-1124.	0.9	61
28	Assessing and Exploiting Functional Diversity in Germplasm Pools to Enhance Abiotic Stress Adaptation and Yield in Cereals and Food Legumes. <i>Frontiers in Plant Science</i> , 2017, 8, 1461.	1.7	60
29	Next-generation sequencing based genotyping, cytometry and phenotyping for understanding diversity and evolution of guinea yams. <i>Theoretical and Applied Genetics</i> , 2014, 127, 1783-1794.	1.8	59
30	Genetic Interaction of an Origin Recognition Complex Subunit and the Polycomb Group Gene MEDEA during Seed Development[W]. <i>Plant Cell</i> , 2004, 16, 1035-1046.	3.1	58
31	Cytoplasmic Male Sterility-Associated Chimeric Open Reading Frames Identified by Mitochondrial Genome Sequencing of Four <i>Cajanus</i> Genotypes. <i>DNA Research</i> , 2013, 20, 485-495.	1.5	58
32	DNA sequence polymorphisms in a panel of eight candidate bovine imprinted genes and their association with performance traits in Irish Holstein-Friesian cattle. <i>BMC Genetics</i> , 2010, 11, 93.	2.7	49
33	Identification of imprinted genes subject to parent-of-origin specific expression in <i>Arabidopsis thaliana</i> seeds. <i>BMC Plant Biology</i> , 2011, 11, 113.	1.6	46
34	Disaggregating polyploidy, parental genome dosage and hybridity contributions to heterosis in <i>Arabidopsis thaliana</i> . <i>New Phytologist</i> , 2016, 209, 590-599.	3.5	46
35	The triploid East African Highland Banana (EAHB) genepool is genetically uniform arising from a single ancestral clone that underwent population expansion by vegetative propagation. <i>Theoretical and Applied Genetics</i> , 2016, 129, 547-561.	1.8	45
36	Genome-wide survey of allele-specific splicing in humans. <i>BMC Genomics</i> , 2008, 9, 265.	1.2	44

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37	Household perspectives on cookstove and fuel stacking: A qualitative study in urban and rural Kenya. <i>Energy for Sustainable Development</i> , 2020, 59, 151-159.	2.0	44
38	Single nucleotide polymorphisms at the imprinted bovine insulin-like growth factor 2 (<i>IGF2</i>) locus are associated with dairy performance in Irish Holstein-Friesian cattle. <i>Journal of Dairy Research</i> , 2011, 78, 1-8.	0.7	41
39	Prediction and validation of microRNA targets in animal genomes. <i>Journal of Biosciences</i> , 2007, 32, 1049-1052.	0.5	38
40	Reduction in Carotenoid Levels in the Marine Diatom <i>Phaeodactylum tricornutum</i> by Artificial MicroRNAs Targeted Against the Endogenous Phytoene Synthase Gene. <i>Marine Biotechnology</i> , 2015, 17, 1-7.	1.1	36
41	DNA sequence polymorphisms within the bovine guanine nucleotide-binding protein Gs subunit alpha (Gsl±)-encoding (GNAS) genomic imprinting domain are associated with performance traits. <i>BMC Genetics</i> , 2011, 12, 4.	2.7	32
42	Molecular adaptation of telomere associated genes in mammals. <i>BMC Evolutionary Biology</i> , 2013, 13, 251.	3.2	32
43	Transposons and Tandem Repeats Are Not Involved in the Control of Genomic Imprinting at the MEDEA Locus in Arabidopsis. <i>Cold Spring Harbor Symposia on Quantitative Biology</i> , 2004, 69, 465-476.	2.0	31
44	EU GM Crop Regulation: A Road to Resolution or a Regulatory Roundabout?. <i>European Journal of Risk Regulation</i> , 2010, 1, 359-369.	0.8	30
45	Genomic imprinting in plants. <i>Epigenetics</i> , 2008, 3, 14-20.	1.3	29
46	Single Nucleotide Polymorphisms within the Bovine DLK1-DIO3 Imprinted Domain Are Associated with Economically Important Production Traits in Cattle. <i>Journal of Heredity</i> , 2011, 102, 94-101.	1.0	29
47	An NTD-Associated Polymorphism in the 3' UTR of MTHFD1L can Affect Disease Risk by Altering miRNA Binding. <i>Human Mutation</i> , 2014, 35, 96-104.	1.1	28
48	Gene dosage compensation of rRNA transcript levels in <i>Arabidopsis thaliana</i> lines with reduced ribosomal gene copy number. <i>Plant Cell</i> , 2021, 33, 1135-1150.	3.1	28
49	Evolutionary and genetic perspectives on the dynamics of crop gene pools.. , 2000, , 25-70.		28
50	A phylogenetic approach to test for evidence of parental conflict or gene duplications associated with protein-encoding imprinted orthologous genes in placental mammals. <i>Mammalian Genome</i> , 2010, 21, 486-498.	1.0	27
51	Toxicological assessment of chemicals using <i>Caenorhabditis elegans</i> and optical oxygen respirometry. <i>Environmental Toxicology and Chemistry</i> , 2009, 28, 791-799.	2.2	26
52	TILLING by Sequencing (TbS) for targeted genome mutagenesis in crops. <i>Molecular Breeding</i> , 2017, 37, 1.	1.0	26
53	Genetic Loci Controlling Carotenoid Biosynthesis in Diverse Tropical Maize Lines. <i>G3: Genes, Genomes, Genetics</i> , 2018, 8, 1049-1065.	0.8	26
54	Gamete fertility and ovule number variation in selfed reciprocal F1 hybrid triploid plants are heritable and display epigenetic parent-of-origin effects. <i>New Phytologist</i> , 2013, 198, 71-81.	3.5	25

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55	Genomic imprinting effects on complex traits in domesticated animal species. <i>Frontiers in Genetics</i> , 2015, 6, 156.	1.1	25
56	Concurrent Suppression of Virus Replication and Rescue of Movement-Defective Virus in Transgenic Plants Expressing the Coat Protein of Potato Virus X. <i>Virology</i> , 1997, 236, 76-84.	1.1	24
57	Emerging molecular mechanisms for biotechnological harnessing of heterosis in crops. <i>Trends in Biotechnology</i> , 2013, 31, 549-551.	4.9	24
58	Generation of stable nulliplex autopolyploid lines of <i>Arabidopsis thaliana</i> using CRISPR/Cas9 genome editing. <i>Plant Cell Reports</i> , 2017, 36, 1005-1008.	2.8	24
59	Genome-Wide microRNA Binding Site Variation between Extinct Wild Aurochs and Modern Cattle Identifies Candidate microRNA-Regulated Domestication Genes. <i>Frontiers in Genetics</i> , 2017, 8, 3.	1.1	24
60	Just the tonic! Legume biorefining for alcohol has the potential to reduce Europe's protein deficit and mitigate climate change. <i>Environment International</i> , 2019, 130, 104870.	4.8	24
61	The impact of forestry as a land use on water quality outcomes: An integrated analysis. <i>Forest Policy and Economics</i> , 2020, 116, 102185.	1.5	24
62	Origin of year-long bean ( <i>Phaseolus dumosus</i> Macfady, Fabaceae) from reticulated hybridization events between multiple <i>Phaseolus</i> species. <i>Annals of Botany</i> , 2016, 118, 957-969.	1.4	23
63	Regulatory interplay between miR-21, JAG1 and 17beta-estradiol (E2) in breast cancer cells. <i>Biochemical and Biophysical Research Communications</i> , 2012, 423, 234-239.	1.0	22
64	Imprinted loci in domestic livestock species as epigenomic targets for artificial selection of complex traits. <i>Animal Genetics</i> , 2014, 45, 25-39.	0.6	21
65	GM directive deficiencies in the European Union. The current framework for regulating GM crops in the EU weakens the precautionary principle as a policy tool. <i>EMBO Reports</i> , 2008, 9, 500-504.	2.0	20
66	Quantitative Genetics Identifies Cryptic Genetic Variation Involved in the Paternal Regulation of Seed Development. <i>PLoS Genetics</i> , 2016, 12, e1005806.	1.5	20
67	Thermal disruption of the food matrix of biofortified lettuce varieties modifies absorption of carotenoids by Caco-2 cells. <i>Food Chemistry</i> , 2020, 308, 125443.	4.2	20
68	Strategies for engineering virus resistance in transgenic plants. <i>Euphytica</i> , 1995, 85, 149-158.	0.6	19
69	Single nucleotide polymorphisms in the imprinted bovine insulin-like growth factor 2 receptor gene ( <i>IGF2R</i> ) are associated with body size traits in Irish Holstein-Friesian cattle. <i>Animal Genetics</i> , 2012, 43, 81-87.	0.6	19
70	Climate smart agriculture extension: gender disparities in agroforestry knowledge acquisition. <i>Climate and Development</i> , 2021, 13, 21-33.	2.2	19
71	Computational Identification and Evolutionary Relationships of the MicroRNA Gene Cluster miR-71/2 in Protostomes. <i>Journal of Molecular Evolution</i> , 2013, 76, 353-358.	0.8	18
72	Paternally Expressed Imprinted Genes under Positive Darwinian Selection in <i>Arabidopsis thaliana</i> . <i>Molecular Biology and Evolution</i> , 2019, 36, 1239-1253.	3.5	18

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73	Sensory and cultural acceptability tradeoffs with nutritional content of biofortified orange-fleshed sweetpotato varieties among households with children in Malawi. <i>PLoS ONE</i> , 2018, 13, e0204754.	1.1	17
74	Morphological, SSR and ploidy analysis of water yam ( <i>Dioscorea alata</i> L.) accessions for utilization of aerial tubers as planting materials. <i>Genetic Resources and Crop Evolution</i> , 2017, 64, 291-305.	0.8	16
75	Identification of candidate flowering and sex genes in white Guinea yam ( <i>D. rotundata</i> Poir.) by SuperSAGE transcriptome profiling. <i>PLoS ONE</i> , 2019, 14, e0216912.	1.1	16
76	Drivers of household and agricultural adaptation to climate change in Vietnam. <i>Climate and Development</i> , 2021, 13, 242-255.	2.2	16
77	Elicitation of Rx-Mediated Resistance to PVX in Potato Does Not Require New RNA Synthesis and May Involve a Latent Hypersensitive Response. <i>Molecular Plant-Microbe Interactions</i> , 1998, 11, 833-835.	1.4	15
78	A catalogue of validated single nucleotide polymorphisms in bovine orthologs of mammalian imprinted genes and associations with beef production traits. <i>Animal</i> , 2010, 4, 1958-1970.	1.3	15
79	DNA barcoding of the main cultivated yams and selected wild species in the genus <i>Dioscorea</i> . <i>Journal of Systematics and Evolution</i> , 2016, 54, 228-237.	1.6	15
80	CmCGG Methylation-Independent Parent-of-Origin Effects on Genome-Wide Transcript Levels in Isogenic Reciprocal F1 Triploid Plants. <i>DNA Research</i> , 2014, 21, 141-151.	1.5	14
81	Current status of the multinational <i>Arabidopsis</i> community. <i>Plant Direct</i> , 2020, 4, e00248.	0.8	13
82	African Origin and Europe-Mediated Global Dispersal of The Cyanobacterium <i>Microcystis aeruginosa</i> . <i>Current Microbiology</i> , 2014, 69, 628-633.	1.0	12
83	Heritable epigenetic diversity for conservation and utilization of epigenetic germplasm resources of clonal East African Highland banana (EAHB) accessions. <i>Theoretical and Applied Genetics</i> , 2020, 133, 2605-2625.	1.8	11
84	<i>PHLDA2</i> is an imprinted gene in cattle. <i>Animal Genetics</i> , 2012, 43, 587-590.	0.6	10
85	Parental genome dosage effects on the transcriptome of F1 hybrid triploid embryos of <i>Arabidopsis thaliana</i> . <i>Plant Journal</i> , 2017, 92, 1044-1058.	2.8	10
86	Epigenetics and Heterosis in Crop Plants. , 2019, , 129-147.		10
87	Integrating gender into index-based agricultural insurance: a focus on South Africa. <i>Development in Practice</i> , 2019, 29, 409-423.	0.6	10
88	Genomic Imprinting in Plants. <i>Advances in Experimental Medicine and Biology</i> , 2008, 626, 89-100.	0.8	10
89	A Polynucleotide Repeat Expansion Causing Temperature-Sensitivity Persists in Wild Irish Accessions of <i>Arabidopsis thaliana</i> . <i>Frontiers in Plant Science</i> , 2016, 7, 1311.	1.7	8
90	Epigenetics and Heterosis in Crop Plants. , 2014, , 13-31.		6

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91	PATRONUS1 is expressed in meiotic prophase I to regulate centromeric cohesion in Arabidopsis and shows synthetic lethality with OSD1. BMC Plant Biology, 2015, 15, 201.	1.6	6
92	Genome-wide identification and <i>in silico</i> characterisation of microRNAs, their targets and processing pathway genes in <i>Phaseolus vulgaris</i> L. Plant Biology, 2016, 18, 206-219.	1.8	6
93	Hybridity has a greater effect than paternal genome dosage on heterosis in sugar beet ( <i>Beta vulgaris</i> ). BMC Plant Biology, 2018, 18, 120.	1.6	6
94	First the seed: Genomic advances in seed science for improved crop productivity and food security. Crop Science, 2021, 61, 1501-1526.	0.8	6
95	Landscaping Plant Epigenetics. Methods in Molecular Biology, 2014, 1112, 1-24.	0.4	6
96	Plastid ribosome protein L5 is essential for post-globular embryo development in Arabidopsis thaliana. Plant Reproduction, 2022, 35, 189-204.	1.3	6
97	Parent-of-Origin Effects on Seed Size Modify Heterosis Responses in Arabidopsis thaliana. Frontiers in Plant Science, 2022, 13, 835219.	1.7	6
98	ALCAM is indirectly modulated by miR-125b in MCF7 cells. Tumor Biology, 2015, 36, 3511-3520.	0.8	5
99	Transgenerational effects of inter-ploidy cross direction on reproduction and F2 seed development of Arabidopsis thaliana F1 hybrid triploids. Plant Reproduction, 2019, 32, 275-289.	1.3	5
100	Engineering of Apomixis in Crop Plants: What Can We Learn from Sexual Model Systems?. , 2003, , 309-314.		5
101	AN INSIGHT INTO THE IMPACT OF ARABLE FARMING ON IRISH BIODIVERSITY: A SCARCITY OF STUDIES HINDERS A RIGOROUS ASSESSMENT. Biology and Environment, 2008, 108, 97-108.	0.2	5
102	In Arabidopsis thaliana codon volatility scores reflect GC3 composition rather than selective pressure. BMC Research Notes, 2012, 5, 359.	0.6	4
103	Data for life cycle assessment of legume biorefining for alcohol. Data in Brief, 2019, 25, 104242.	0.5	4
104	Kinship networks of seed exchange shape spatial patterns of plant virus diversity. Nature Communications, 2021, 12, 4505.	5.8	4
105	Combining Ability and Heterosis for Endosperm Carotenoids and Agronomic Traits in Tropical Maize Lines. Frontiers in Plant Science, 2021, 12, 674089.	1.7	4
106	Community-Level Impacts of Climate-Smart Agriculture Interventions on Food Security and Dietary Diversity in Climate-Smart Villages in Myanmar. Climate, 2021, 9, 166.	1.2	4
107	Plant-Produced Biopharmaceuticals. , 2010, , 269-299.		3
108	Genomics in Agriculture and Food Processing. , 2013, , 45-70.		3

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109	Effect of constituents from samaras of <i>Austroplenckia populnea</i> (Celastraceae) on human cancer cells. <i>Journal of Intercultural Ethnopharmacology</i> , 2015, 4, 6.	0.9	3
110	Analysis of Genomic Imprinting by Quantitative Allele-Specific Expression by Pyrosequencing®. <i>Methods in Molecular Biology</i> , 2014, 1112, 85-104.	0.4	2
111	1 out of 27 "European politicians score poorly in agbiotech. <i>Nature Biotechnology</i> , 2010, 28, 551-552.	9.4	1
112	High Concordance of Bovine Single Nucleotide Polymorphism Genotypes Generated Using Two Independent Genotyping Strategies. <i>Animal Biotechnology</i> , 2010, 21, 257-262.	0.7	1
113	Allele-specific splicing effects on <i>DKKL1</i> and <i>ZNF419</i> transcripts in HeLa cells. <i>Gene</i> , 2017, 598, 107-112.	1.0	1
114	Parent-of-Origin Effects and Seed Development. , 2002, , .		1
115	An Overview of Current Research in Plant Epigenetic and Epigenomic Phenomena. <i>Methods in Molecular Biology</i> , 2020, 2093, 3-13.	0.4	1
116	Poverty Alleviation, Plant Biotechnology and the Importance of the CGIAR International Agricultural Research Centres. , 0, , .		0