Catarina Brito

List of Publications by Year
in descending order

106 papers	3,768 citations	186265 28 h-index	133252 59 g-index
110 all docs	110 docs citations	110 times ranked	6424 citing authors

#	Article	IF	Citations
1	Three‐dimensional models of cancer for pharmacology and cancer cell biology: Capturing tumor complexity in vitro/ex vivo. Biotechnology Journal, 2014, 9, 1115-1128.	3.5	316
2	Process engineering of human pluripotent stem cells for clinical application. Trends in Biotechnology, 2012, 30, 350-359.	9.3	271
3	Mind the gapâ€"deficits in our knowledge of aspects impacting the bioavailability of phytochemicals and their metabolitesâ€"a position paper focusing on carotenoids and polyphenols. Molecular Nutrition and Food Research, 2015, 59, 1307-1323.	3.3	204
4	Human liver cell spheroids in extended perfusion bioreactor culture for repeated-dose drug testing. Hepatology, 2012, 55, 1227-1236.	7.3	195
5	Capturing tumor complexity in vitro: Comparative analysis of 2D and 3D tumor models for drug discovery. Scientific Reports, 2016, 6, 28951.	3.3	192
6	Polyphenols journey through blood-brain barrier towards neuronal protection. Scientific Reports, 2017, 7, 11456.	3.3	177
7	3D-3-culture: A tool to unveil macrophage plasticity in the tumour microenvironment. Biomaterials, 2018, 163, 185-197.	11.4	169
8	Microencapsulation Technology: A Powerful Tool for Integrating Expansion and Cryopreservation of Human Embryonic Stem Cells. PLoS ONE, 2011, 6, e23212.	2.5	151
9	Improving expansion of pluripotent human embryonic stem cells in perfused bioreactors through oxygen control. Journal of Biotechnology, 2010, 148, 208-215.	3.8	135
10	A multi-organ chip co-culture of neurospheres and liver equivalents for long-term substance testing. Journal of Biotechnology, 2015, 205, 36-46.	3.8	124
11	Modelling the tumour microenvironment in long-term microencapsulated 3D co-cultures recapitulates phenotypic features of disease progression. Biomaterials, 2016, 78, 50-61.	11.4	99
12	Adaptable stirred-tank culture strategies for large scale production of multicellular spheroid-based tumor cell models. Journal of Biotechnology, 2016, 221, 118-129.	3.8	92
13	Drug screening in 3D in vitro tumor models: overcoming current pitfalls of efficacy readâ€outs. Biotechnology Journal, 2017, 12, 1600505.	3.5	77
14	SPIM-fluid: open source light-sheet based platform for high-throughput imaging. Biomedical Optics Express, 2015, 6, 4447.	2.9	70
15	Three-dimensional co-culture of human hepatocytes and mesenchymal stem cells: improved functionality in long-term bioreactor cultures. Journal of Tissue Engineering and Regenerative Medicine, 2017, 11, 2034-2045.	2.7	66
16	Combining Hypoxia and Bioreactor Hydrodynamics Boosts Induced Pluripotent Stem Cell Differentiation Towards Cardiomyocytes. Stem Cell Reviews and Reports, 2014, 10, 786-801.	5.6	65
17	Recapitulation of Human Neural Microenvironment Signatures in iPSC-Derived NPC 3D Differentiation. Stem Cell Reports, 2018, 11, 552-564.	4.8	59
18	Cysteine allows ovarian cancer cells to adapt to hypoxia and to escape from carboplatin cytotoxicity. Scientific Reports, 2018, 8, 9513.	3.3	52

#	ARTICLE	IF	CITATIONS
19	HepaRG microencapsulated spheroids in DMSO-free culture: novel culturing approaches for enhanced xenobiotic and biosynthetic metabolism. Archives of Toxicology, 2015, 89, 1347-1358.	4.2	51
20	Alginate Encapsulation as a Novel Strategy for the Cryopreservation of Neurospheres. Tissue Engineering - Part C: Methods, 2010, 16, 965-977.	2.1	50
21	Stem Cell-Derived Systems in Toxicology Assessment. Stem Cells and Development, 2015, 24, 1284-1296.	2.1	49
22	Modeling Human Neural Functionality *In Vitro*: Three-Dimensional Culture for Dopaminergic Differentiation. Tissue Engineering - Part A, 2015, 21, 654-668.	3.1	44
23	Integrating human stem cell expansion and neuronal differentiation in bioreactors. BMC Biotechnology, 2009, 9, 82.	3.3	40
24	Generation and genetic modification of 3D cultures of human dopaminergic neurons derived from neural progenitor cells. Methods, 2012, 56, 452-460.	3.8	40
25	Blood–brain barrier transport and neuroprotective potential of blackberry-digested polyphenols: an in vitro study. European Journal of Nutrition, 2019, 58, 113-130.	3.9	37
26	Robust Expansion of Human Pluripotent Stem Cells: Integration of Bioprocess Design With Transcriptomic and Metabolomic Characterization. Stem Cells Translational Medicine, 2015, 4, 731-742.	3.3	35
27	Imaging of human differentiated 3D neural aggregates using light sheet fluorescence microscopy. Frontiers in Cellular Neuroscience, 2014, 8, 221.	3.7	34
28	Monocytes as Endothelial Progenitor Cells (EPCs), Another Brick in the Wall to Disentangle Tumor Angiogenesis. Cells, 2020, 9, 107.	4.1	33
29	Stirred bioreactors for the expansion of adult pancreatic stem cells. Annals of Anatomy, 2009, 191, 104-115.	1.9	32
30	Functional and phenotypic differences of pure populations of stem cell–derived astrocytes and neuronal precursor cells. Glia, 2016, 64, 695-715.	4.9	30
31	Conversion of Nonproliferating Astrocytes into Neurogenic Neural Stem Cells: Control by FGF2 and Interferon-Î³. Stem Cells, 2016, 34, 2861-2874.	3.2	29
32	Quantification of Metabolic Rearrangements During Neural Stem Cells Differentiation into Astrocytes by Metabolic Flux Analysis. Neurochemical Research, 2017, 42, 244-253.	3.3	28
33	Protocols and characterization data for 2D, 3D, and slice-based tumor models from the PREDECT project. Scientific Data, 2017, 4, 170170.	5.3	27
34	Polymethoxylated Flavones from Orange Peels Inhibit Cell Proliferation in a 3D Cell Model of Human Colorectal Cancer. Nutrition and Cancer, 2018, 70, 257-266.	2.0	27
35	3D Cancer Models: Depicting Cellular Crosstalk within the Tumour Microenvironment. Cancers, 2021, 13, 4610.	3.7	27
36	Importance of Cys, Gln, and Tyr from the Transmembrane Domain of Human Î±3/4 Fucosyltransferase III for Its Localization and Sorting in the Golgi of Baby Hamster Kidney Cells. Journal of Biological Chemistry, 2003, 278, 7624-7629.	3.4	25

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37	Novel culture strategy for human stem cell proliferation and neuronal differentiation. Journal of Neuroscience Research, 2007, 85, 3557-3566.	2.9	25
38	Novel scalable 3D cell based model for in vitro neurotoxicity testing: Combining human differentiated neurospheres with gene expression and functional endpoints. Journal of Biotechnology, 2015, 205, 82-92.	3.8	25
39	Flexible 3D Cell-Based Platforms for the Discovery and Profiling of Novel Drugs Targeting *Plasmodium* Hepatic Infection. ACS Infectious Diseases, 2019, 5, 1831-1842.	3.8	25
40	Human fucosyltransferase IX: Specificity towards N-linked glycoproteins and relevance of the cytoplasmic domain in intra-Golgi localization. Biochimie, 2008, 90, 1279-1290.	2.6	24
41	The Volume of Three-Dimensional Cultures of Cancer Cells In Vitro Influences Transcriptional Profile Differences and Similarities with Monolayer Cultures and Xenografted Tumors. Neoplasia, 2017, 19, 695-706.	5.3	23
42	Mucins and Truncated O-Glycans Unveil Phenotypic Discrepancies between Serous Ovarian Cancer Cell Lines and Primary Tumours. International Journal of Molecular Sciences, 2018, 19, 2045.	4.1	22
43	Increased levels of fucosyltransferase IX and carbohydrate Lewisx adhesion determinant in human NT2N neurons. Journal of Neuroscience Research, 2007, 85, 1260-1270.	2.9	20
44	Application of LDH assay for therapeutic efficacy evaluation of ex vivo tumor models. Scientific Reports, 2021, 11, 18571.	3.3	20
45	N-glycosylation of human nicastrin is required for interaction with the lectins from the secretory pathway calnexin and ERGIC-53. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2006, 1762, 802-810.	3.8	19
46	Proteomic analyses of Ehrlichia ruminantium highlight differential expression of MAP1-family proteins. Veterinary Microbiology, 2012, 156, 305-314.	1.9	19
47	Patient-derived ovarian cancer explants: preserved viability and histopathological features in long-term agitation-based cultures. Scientific Reports, 2020, 10, 19462.	3.3	19
48	Different expression levels of Î±3/4 fucosyltransferases and Lewis determinants in ovarian carcinoma tissues and cell lines. International Journal of Oncology, 2006, 29, 557.	3.3	18
49	Human neuron-astrocyte 3D co-culture-based assay for evaluation of neuroprotective compounds. Journal of Pharmacological and Toxicological Methods, 2017, 83, 72-79.	0.7	18
50	Transcriptional Response of Human Neurospheres to Helper-Dependent CAV-2 Vectors Involves the Modulation of DNA Damage Response, Microtubule and Centromere Gene Groups. PLoS ONE, 2015, 10, e0133607.	2.5	17
51	Definition of a cell surface signature for human cardiac progenitor cells after comprehensive comparative transcriptomic and proteomic characterization. Scientific Reports, 2019, 9, 4647.	3.3	17
52	Surfaceâ€based cryopreservation strategies for human embryonic stem cells: A comparative study. Biotechnology Progress, 2012, 28, 1079-1087.	2.6	16
53	Functional metabolic interactions of human neuron-astrocyte 3D in vitro networks. Scientific Reports, 2016, 6, 33285.	3.3	16
54	Evaluation of AAV-mediated delivery of shRNA to target basal-like breast cancer genetic vulnerabilities. Journal of Biotechnology, 2019, 300, 70-77.	3.8	16

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55	A novel culture method that sustains ERα signaling in human breast cancer tissue microstructures. Journal of Experimental and Clinical Cancer Research, 2020, 39, 161.	8.6	16
56	Evaluation of helper-dependent canine adenovirus vectors in a 3D human CNS model. Gene Therapy, 2016, 23, 86-94.	4.5	15
57	Lysosomal and network alterations in human mucopolysaccharidosis type VII iPSC-derived neurons. Scientific Reports, 2018, 8, 16644.	3.3	15
58	Heterotypic Tumor Spheroids in Agitation-Based Cultures: A Scaffold-Free Cell Model That Sustains Long-Term Survival of Endothelial Cells. Frontiers in Bioengineering and Biotechnology, 2021, 9, 649949.	4.1	15
59	Exploring analytical proteomics platforms toward the definition of human cardiac stem cells receptome. Proteomics, 2015, 15, 1332-1337.	2.2	14
60	Perfusion Stirred-Tank Bioreactors for 3D Differentiation of Human Neural Stem Cells. Methods in Molecular Biology, 2016, 1502, 129-142.	0.9	14
61	The Peripheral Immune Landscape of Breast Cancer: Clinical Findings and In Vitro Models for Biomarker Discovery. Cancers, 2021, 13, 1305.	3.7	14
62	Deletion of the cytoplasmic domain of human α3/4 fucosyltransferase III causes the shift of the enzyme to early Golgi compartments. Biochimica Et Biophysica Acta - General Subjects, 2004, 1675, 95-104.	2.4	13
63	In vitro expansion of human cardiac progenitor cells: exploring 'omics tools for characterization of cell-based allogeneic products. Translational Research, 2016, 171, 96-110.e3.	5.0	13
64	Development of Novel Galactosylated PLGA Nanoparticles for Hepatocyte Targeting Using Molecular Modelling. Polymers, 2020, 12, 94.	4.5	10
65	In Vitro and Ex Vivo Models— The Tumor Microenvironment in a Flask. Advances in Experimental Medicine and Biology, 2020, 1219, 431-443.	1.6	9
66	Subcellular localization of the carbohydrate Lewisx adhesion structure in hippocampus cell cultures. Brain Research, 2009, 1287, 39-46.	2.2	8
67	Cracking the Breast Cancer Glyco-Code through Glycan-Lectin Interactions: Targeting Immunosuppressive Macrophages. International Journal of Molecular Sciences, 2021, 22, 1972.	4.1	8
68	Circulating (Poly)phenol Metabolites: Neuroprotection in a 3D Cell Model of Parkinson's Disease. Molecular Nutrition and Food Research, 2022, 66, e2100959.	3.3	8
69	A computational diffusion model to study antibody transport within reconstructed tumor microenvironments. BMC Bioinformatics, 2020, 21, 529.	2.6	7
70	Capturing the third dimension in drug discovery: Spatially-resolved tools for interrogation of complex 3D cell models. Biotechnology Advances, 2022, 55, 107883.	11.7	7
71	PDX-Derived Ewing's Sarcoma Cells Retain High Viability and Disease Phenotype in Alginate Encapsulated Spheroid Cultures. Cancers, 2021, 13, 879.	3.7	6
72	Development of Dl1.72, a Novel Anti-DLL1 Antibody with Anti-Tumor Efficacy against Estrogen Receptor-Positive Breast Cancer. Cancers, 2021, 13, 4074.	3.7	6

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73	Patient-Derived Explants of Colorectal Cancer: Histopathological and Molecular Analysis of Long-Term Cultures. Cancers, 2021, 13, 4695.	3.7	6
74	Towards human central nervous system in vitro models for preclinical research: strategies for 3D neural cell culture. BMC Proceedings, 2011, 5, P53.	1.6	5
75	Validation of Bioreactor and Human-on-a-Chip Devices for Chemical Safety Assessment. Advances in Experimental Medicine and Biology, 2016, 856, 299-316.	1.6	5
76	Unveiling dynamic metabolic signatures in human induced pluripotent and neural stem cells. PLoS Computational Biology, 2020, 16, e1007780.	3.2	5
77	Bioengineered Liver Cell Models of Hepatotropic Infections. Viruses, 2021, 13, 773.	3.3	5
78	Pre-erythrocytic Activity of M5717 in Monotherapy and Combination in Preclinical *Plasmodium* Infection Models. ACS Infectious Diseases, 2022, 8, 721-727.	3.8	5
79	Scalable Culture Strategies for the Expansion of Patient-Derived Cancer Stem Cell Lines. Stem Cells International, 2019, 2019, 1-7.	2.5	4
80	Using High-Pressure Technology to Develop Antioxidant-Rich Extracts from Bravo de Esmolfe Apple Residues. Antioxidants, 2021, 10, 1469.	5.1	4
81	Stable expression of an active soluble recombinant form of human fucosyltransferase IX in Spodoptera frugiperda Sf9 cells. Biotechnology Letters, 2007, 29, 1623-1630.	2.2	3
82	PREDECT Protocols for Complex 2D/3D Cultures. Methods in Molecular Biology, 2019, 1888, 1-20.	0.9	3
83	Establishment and characterization of a novel ovarian high-grade serous carcinoma cell line—IPO43. Cancer Cell International, 2022, 22, 175.	4.1	3
84	Translation of liver stage activity of M5717, a Plasmodium elongation factor 2 inhibitor: from bench to bedside. Malaria Journal, 2022, 21, 151.	2.3	3
85	Establishing Liver Bioreactors for In Vitro Research. Methods in Molecular Biology, 2015, 1250, 189-202.	0.9	2
86	1H-NMR spectroscopy for human 3D neural stem cell cultures metabolic profiling. BMC Proceedings, 2013, 7, O8.	1.6	1
87	Abstract 630: Co-injection of human fibroblasts significantly enhances tumorigenicity of orthotopically implanted human non-small cell lung cancer cells in immunocompromised mice. , 2016, , .		1
88	3D-3-Culture: Tumor Models to Study Heterotypic Interactions in the Tumor Microenvironment. Methods in Pharmacology and Toxicology, 2020, , 117-130.	0.2	1
89	47. Towards a scalable, high-throughput cryopreservation strategy for human embryonic stem cells. Cryobiology, 2010, 61, 376.	0.7	0
90	Corrigendum to "Generation and genetic modification of 3D cultures of human dopaminergic neurons derived from neural progenitor cells•[Methods 56 (2012) 452—460]. Methods, 2012, 57, 138.	3.8	0

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91	Evaluation of the impact of matrix stiffness on encapsulated HepaRG spheroids. BMC Proceedings, 2013, 7, P77.	1.6	0
92	350: Recapitulation of non-small-cell lung carcinoma microenvironment in perfusion bioreactor cultures: the impact of hypoxia on tumourâ€"stroma crosstalk. European Journal of Cancer, 2014, 50, S83.	2.8	0
93	273 Modelling tumor-stroma crosstalk in vivo by co-implantation of human fibroblasts and human lung cancer cells orthotopically into immuncompromized mice. European Journal of Cancer, 2015, 51, S50-S51.	2.8	0
94	Mimicking disease progression features by modulation of the tumour microenvironment in stirred-tank culture systems. European Journal of Cancer, 2016, 61, S74.	2.8	0
95	AAV-shRNA vectors as an alternative therapy for human basal-like breast cancer. European Journal of Cancer, 2016, 61, S145.	2.8	0
96	The impact of co-culture of NSCLC tumor cells and fibroblasts on drug response. Annals of Oncology, 2017, 28, v21.	1.2	0
97	PO-270 3D-3-culture: A tool to unveil macrophage plasticity in the tumour microenvironment. ESMO Open, 2018, 3, A333.	4.5	0
98	PO-296 Identification of novel players of tumour â€" macrophage crosstalk in lung cancer. ESMO Open, 2018, 3, A343-A344.	4.5	0
99	PO-434 Patient-derived cancer explants preserve tumour architecture and heterogeneity in dynamic culture. ESMO Open, 2018, 3, A401.	4.5	0
100	Su1765 - Patient-Derived Colorectal Cancer Explants - Adequate Models for Chemotherapy Testing?. Gastroenterology, 2018, 154, S-583.	1.3	0
101	OC 8415â€¦A TRANSLATIONAL PRECLINICAL PLATFORM TO ASSESS THE CHEMOPROPHYLAXIS AND CHEMOPREVENTION DOSE-RELATIONSHIP OF MALARIA DRUGS: THE CASE STUDY OF M5717. BMJ Global Health, 2019, 4, A5.2-A5.	4.7	0
102	Bioprocessing of Human Pluripotent Stem Cells for Cell Therapy Applications. Cell Engineering, 2014, , 71-95.	0.4	0
103	Abstract 321: In vitro recapitulation of 3D tumor microenvironment with defined oxygen and pH levels through a novel scalable bioreactor-based strategy. , 2015, , .		0
104	Abstract 1698: Systems pathology for characterization of cancer model systems in a multicenter IMI-PREDECT project. , 2015, , .		0
105	Abstract A21: 3D tumor models in bioreactors recapitulate microenvironment and disease progression. , 2017, , .		0
106	Abstract 1048: Preservation of tumor architecture and heterogeneity in long-term cultures of patient-derived explants. , 2018, , .		0