

Catarina Brito

List of Publications by Year in descending order

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106
papers

3,768
citations

186254

28
h-index

133244

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

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

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37	Novel culture strategy for human stem cell proliferation and neuronal differentiation. <i>Journal of Neuroscience Research</i> , 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. <i>Journal of Biotechnology</i> , 2015, 205, 82-92.	3.8	25
39	Flexible 3D Cell-Based Platforms for the Discovery and Profiling of Novel Drugs Targeting <i>Plasmodium</i> Hepatic Infection. <i>ACS Infectious Diseases</i> , 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. <i>Biochimie</i> , 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. <i>Neoplasia</i> , 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. <i>International Journal of Molecular Sciences</i> , 2018, 19, 2045.	4.1	22
43	Increased levels of fucosyltransferase IX and carbohydrate Lewisx adhesion determinant in human NT2N neurons. <i>Journal of Neuroscience Research</i> , 2007, 85, 1260-1270.	2.9	20
44	Application of LDH assay for therapeutic efficacy evaluation of ex vivo tumor models. <i>Scientific Reports</i> , 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. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2006, 1762, 802-810.	3.8	19
46	Proteomic analyses of <i>Ehrlichia ruminantium</i> highlight differential expression of MAP1-family proteins. <i>Veterinary Microbiology</i> , 2012, 156, 305-314.	1.9	19
47	Patient-derived ovarian cancer explants: preserved viability and histopathological features in long-term agitation-based cultures. <i>Scientific Reports</i> , 2020, 10, 19462.	3.3	19
48	Different expression levels of α 3/4 fucosyltransferases and Lewis determinants in ovarian carcinoma tissues and cell lines. <i>International Journal of Oncology</i> , 2006, 29, 557.	3.3	18
49	Human neuron-astrocyte 3D co-culture-based assay for evaluation of neuroprotective compounds. <i>Journal of Pharmacological and Toxicological Methods</i> , 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. <i>PLoS ONE</i> , 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. <i>Scientific Reports</i> , 2019, 9, 4647.	3.3	17
52	Surface-based cryopreservation strategies for human embryonic stem cells: A comparative study. <i>Biotechnology Progress</i> , 2012, 28, 1079-1087.	2.6	16
53	Functional metabolic interactions of human neuron-astrocyte 3D in vitro networks. <i>Scientific Reports</i> , 2016, 6, 33285.	3.3	16
54	Evaluation of AAV-mediated delivery of shRNA to target basal-like breast cancer genetic vulnerabilities. <i>Journal of Biotechnology</i> , 2019, 300, 70-77.	3.8	16

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55	A novel culture method that sustains ER α signaling in human breast cancer tissue microstructures. <i>Journal of Experimental and Clinical Cancer Research</i> , 2020, 39, 161.	8.6	16
56	Evaluation of helper-dependent canine adenovirus vectors in a 3D human CNS model. <i>Gene Therapy</i> , 2016, 23, 86-94.	4.5	15
57	Lysosomal and network alterations in human mucopolysaccharidosis type VII iPSC-derived neurons. <i>Scientific Reports</i> , 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. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 649949.	4.1	15
59	Exploring analytical proteomics platforms toward the definition of human cardiac stem cells receptome. <i>Proteomics</i> , 2015, 15, 1332-1337.	2.2	14
60	Perfusion Stirred-Tank Bioreactors for 3D Differentiation of Human Neural Stem Cells. <i>Methods in Molecular Biology</i> , 2016, 1502, 129-142.	0.9	14
61	The Peripheral Immune Landscape of Breast Cancer: Clinical Findings and In Vitro Models for Biomarker Discovery. <i>Cancers</i> , 2021, 13, 1305.	3.7	14
62	Deletion of the cytoplasmic domain of human α 3/4 fucosyltransferase III causes the shift of the enzyme to early Golgi compartments. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 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. <i>Translational Research</i> , 2016, 171, 96-110.e3.	5.0	13
64	Development of Novel Galactosylated PLGA Nanoparticles for Hepatocyte Targeting Using Molecular Modelling. <i>Polymers</i> , 2020, 12, 94.	4.5	10
65	In Vitro and Ex Vivo Models "The Tumor Microenvironment in a Flask. <i>Advances in Experimental Medicine and Biology</i> , 2020, 1219, 431-443.	1.6	9
66	Subcellular localization of the carbohydrate Lewisx adhesion structure in hippocampus cell cultures. <i>Brain Research</i> , 2009, 1287, 39-46.	2.2	8
67	Cracking the Breast Cancer Glyco-Code through Glycan-Lectin Interactions: Targeting Immunosuppressive Macrophages. <i>International Journal of Molecular Sciences</i> , 2021, 22, 1972.	4.1	8
68	Circulating (Poly)phenol Metabolites: Neuroprotection in a 3D Cell Model of Parkinson's Disease. <i>Molecular Nutrition and Food Research</i> , 2022, 66, e2100959.	3.3	8
69	A computational diffusion model to study antibody transport within reconstructed tumor microenvironments. <i>BMC Bioinformatics</i> , 2020, 21, 529.	2.6	7
70	Capturing the third dimension in drug discovery: Spatially-resolved tools for interrogation of complex 3D cell models. <i>Biotechnology Advances</i> , 2022, 55, 107883.	11.7	7
71	PDX-Derived Ewing's Sarcoma Cells Retain High Viability and Disease Phenotype in Alginate Encapsulated Spheroid Cultures. <i>Cancers</i> , 2021, 13, 879.	3.7	6
72	Development of DI1.72, a Novel Anti-DLL1 Antibody with Anti-Tumor Efficacy against Estrogen Receptor-Positive Breast Cancer. <i>Cancers</i> , 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. <i>Cancers</i> , 2021, 13, 4695.	3.7	6
74	Towards human central nervous system in vitro models for preclinical research: strategies for 3D neural cell culture. <i>BMC Proceedings</i> , 2011, 5, P53.	1.6	5
75	Validation of Bioreactor and Human-on-a-Chip Devices for Chemical Safety Assessment. <i>Advances in Experimental Medicine and Biology</i> , 2016, 856, 299-316.	1.6	5
76	Unveiling dynamic metabolic signatures in human induced pluripotent and neural stem cells. <i>PLoS Computational Biology</i> , 2020, 16, e1007780.	3.2	5
77	Bioengineered Liver Cell Models of Hepatotropic Infections. <i>Viruses</i> , 2021, 13, 773.	3.3	5
78	Pre-erythrocytic Activity of M5717 in Monotherapy and Combination in Preclinical <i>Plasmodium</i> Infection Models. <i>ACS Infectious Diseases</i> , 2022, 8, 721-727.	3.8	5
79	Scalable Culture Strategies for the Expansion of Patient-Derived Cancer Stem Cell Lines. <i>Stem Cells International</i> , 2019, 2019, 1-7.	2.5	4
80	Using High-Pressure Technology to Develop Antioxidant-Rich Extracts from Bravo de Esmolfe Apple Residues. <i>Antioxidants</i> , 2021, 10, 1469.	5.1	4
81	Stable expression of an active soluble recombinant form of human fucosyltransferase IX in <i>Spodoptera frugiperda</i> Sf9 cells. <i>Biotechnology Letters</i> , 2007, 29, 1623-1630.	2.2	3
82	PREDECT Protocols for Complex 2D/3D Cultures. <i>Methods in Molecular Biology</i> , 2019, 1888, 1-20.	0.9	3
83	Establishment and characterization of a novel ovarian high-grade serous carcinoma cell line "IPO43. <i>Cancer Cell International</i> , 2022, 22, 175.	4.1	3
84	Translation of liver stage activity of M5717, a <i>Plasmodium</i> elongation factor 2 inhibitor: from bench to bedside. <i>Malaria Journal</i> , 2022, 21, 151.	2.3	3
85	Establishing Liver Bioreactors for In Vitro Research. <i>Methods in Molecular Biology</i> , 2015, 1250, 189-202.	0.9	2
86	¹ H-NMR spectroscopy for human 3D neural stem cell cultures metabolic profiling. <i>BMC Proceedings</i> , 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-Culture: Tumor Models to Study Heterotypic Interactions in the Tumor Microenvironment. <i>Methods in Pharmacology and Toxicology</i> , 2020, , 117-130.	0.2	1
89	47. Towards a scalable, high-throughput cryopreservation strategy for human embryonic stem cells. <i>Cryobiology</i> , 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]. <i>Methods</i> , 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 tumour-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 immunocompromized 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 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 8415...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