Could 3D models of cancer enhance drug screening?

Biomaterials 232, 119744 DOI: 10.1016/j.biomaterials.2019.119744

Citation Report

	CITATION REPORT	
Article	IF	CITATIONS
Three-dimensional cell models for extracellular vesicles production, isolation, and characterization. Methods in Enzymology, 2020, 645, 209-230.	0.4	1
Constructing a Biomaterial to Simulate Extracellular Drug Transport in Solid Tumors. Macromolecular Bioscience, 2020, 20, e2000251.	2.1	6
Co-culture and 3D tumor models for drug/gene therapy testing. , 2020, , 505-532.		0
Descriptive Proteome Analysis to Investigate Context-Dependent Treatment Responses to OXPHO Inhibition in Colon Carcinoma Cells Grown as Monolayer and Multicellular Tumor Spheroids. ACS Omega, 2020, 5, 17242-17254.	S 1.6	8
In Vitro Modeling of Non-Solid Tumors: How Far Can Tissue Engineering Go?. International Journal o Molecular Sciences, 2020, 21, 5747.	of 1.8	16
Hyperthermia Induced by Gold Nanoparticles and Visible Light Photothermy Combined with Chemotherapy to Tackle Doxorubicin Sensitive and Resistant Colorectal Tumor 3D Spheroids. International Journal of Molecular Sciences, 2020, 21, 8017.	1.8	19
Trends in Bone Metastasis Modeling. Cancers, 2020, 12, 2315.	1.7	8
3D printed <i>in vitro</i> tumor tissue model of colorectal cancer. Theranostics, 2020, 10, 12127-	12143. 4.6	44
<i>In vitro</i> threeâ€dimensional culture systems of salivary glands. Pathology International, 202 493-501.	0, 70, 0.6	9
Robot technology identifies a Parkinsonian therapeutics repurpose to target stem cells of glioblastoma. CNS Oncology, 2020, 9, CNS58.	1.2	12
Three dimensional engineered models to study hypoxia biology in breast cancer. Cancer Letters, 20 490, 124-142.)20, <u>3.2</u>	21
Application of a 3D Bioprinted Hepatocellular Carcinoma Cell Model in Antitumor Drug Research. Frontiers in Oncology, 2020, 10, 878.	1.3	52
Tumor-Stroma Interactions Alter the Sensitivity of Drug in Breast Cancer. Frontiers in Materials, 2020, 7, .	1.2	11
Gene Expression Signature of BRAF Inhibitor Resistant Melanoma Spheroids. Pathology and Oncolo Research, 2020, 26, 2557-2566.	ogy 0.9	5
3D bioprinted breast tumor model for structure–activity relationship study. Bio-Design and Manufacturing, 2020, 3, 361-372.	3.9	15

16	Evaluation of inhibitory effects of geniposide on a tumor model of human breast cancer based on 3D printed Cs/Gel hybrid scaffold. Materials Science and Engineering C, 2021, 119, 111509.	3.8	20
17	Ex Vivo Analysis of Primary Tumor Specimens for Evaluation of Cancer Therapeutics. Annual Review of Cancer Biology, 2021, 5, 39-57.	2.3	9
18	Nanodiamond-based photosensitizer: Enhancing photodynamic therapy and inhibiting tumor metastasis. Carbon, 2021, 174, 90-97	5.4	8

#

1

3

5

7

9

11

13

15

#	Article	IF	CITATIONS
19	BRCA1 and BRCA2 associated breast cancer and the roles of current modelling systems in drug discovery. Biochimica Et Biophysica Acta: Reviews on Cancer, 2021, 1875, 188459.	3.3	5
20	Hydrogels to engineer tumor microenvironments <i>in vitro</i> . Biomaterials Science, 2021, 9, 2362-2383.	2.6	17
21	Employing hydrogels in tissue engineering approaches to boost conventional cancer-based research and therapies. RSC Advances, 2021, 11, 10646-10669.	1.7	9
22	Advanced Multi-Dimensional Cellular Models as Emerging Reality to Reproduce In Vitro the Human Body Complexity. International Journal of Molecular Sciences, 2021, 22, 1195.	1.8	31
23	A Genetically Encoded Bioluminescence Intracellular Nanosensor for Androgen Receptor Activation Monitoring in 3D Cell Models. Sensors, 2021, 21, 893.	2.1	7
24	3D Cell Culture: Recent Development in Materials with Tunable Stiffness. ACS Applied Bio Materials, 2021, 4, 2233-2250.	2.3	45
25	Perfusion Flow Enhances Viability and Migratory Phenotype in 3D-Cultured Breast Cancer Cells. Annals of Biomedical Engineering, 2021, 49, 2103-2113.	1.3	18
26	Oxygen Plasma Treated-Electrospun Polyhydroxyalkanoate Scaffolds for Hydrophilicity Improvement and Cell Adhesion. Polymers, 2021, 13, 1056.	2.0	17
27	Oxygen-Carrying Polymer Nanoconstructs for Radiodynamic Therapy of Deep Hypoxic Malignant Tumors. Biomedicines, 2021, 9, 322.	1.4	11
28	The Dynamic Interaction between Extracellular Matrix Remodeling and Breast Tumor Progression. Cells, 2021, 10, 1046.	1.8	16
29	3D Models of Surrogate Multiple Myeloma Bone Marrow Microenvironments: Insights on Disease Pathophysiology and Patient-Specific Response to Drugs. , 0, , .		0
30	Using 3D in vitro cell culture models in anti-cancer drug discovery. Expert Opinion on Drug Discovery, 2021, 16, 841-850.	2.5	16
31	Artificial Tumor Microenvironments in Neuroblastoma. Cancers, 2021, 13, 1629.	1.7	13
32	Recruitment, Infiltration, and Cytotoxicity of HLA-Independent Killer Lymphocytes in Three-Dimensional Melanoma Models. Cancers, 2021, 13, 2302.	1.7	2
33	3D bioprinting for in vitro models of oral cancer: Toward development and validation. Bioprinting, 2021, 22, e00132.	2.9	11
34	3D printing in biomedical engineering: Processes, materials, and applications. Applied Physics Reviews, 2021, 8, .	5.5	46
35	The past, present, and future of breast cancer models for nanomedicine development. Advanced Drug Delivery Reviews, 2021, 173, 306-330.	6.6	65
36	Applications of 3D Bio-Printing in Tissue Engineering and Biomedicine. Journal of Biomedical Nanotechnology, 2021, 17, 989-1006.	0.5	9

CITATION REPORT

ARTICLE IF CITATIONS # Tumor cell invasion into Matrigel: optimized protocol for RNA extraction. BioTechniques, 2021, 70, 38 0.8 0 327-335. 3D Collagen-Nanocellulose Matrices Model the Tumour Microenvironment of Pancreatic Cancer. 1.5 Frontiers in Digital Health, 2021, 3, 704584. Current hurdles to the translation of nanomedicines from bench to the clinic. Drug Delivery and 40 3.0 92 Translational Research, 2022, 12, 500-525. Translating complexity and heterogeneity of pancreatic tumor: 3D in vitro to in vivo models. Advanced Drug Delivery Reviews, 2021, 174, 265-293. The Role of the Microenvironment and Immune System in Regulating Stem Cell Fate in Cancer. Trends 42 3.8 51 in Cancer, 2021, 7, 624-634. Meet me halfway: Are in vitro 3D cancer models on the way to replace in vivo models for 6.6 nanomedicine development?. Advanced Drug Delivery Reviews, 2021, 175, 113760. Mechanical Studies of the Third Dimension in Cancer: From 2D to 3D Model. International Journal of 44 1.8 22 Molecular Sciences, 2021, 22, 10098. Spatially resolved quantification of drug metabolism and efficacy in 3D paper-based tumor mimics. 2.6 Analytića Chimica Ácta, 2021, 1186, 339091. Recent advances in 3D models of tumor invasion. Current Opinion in Biomedical Engineering, 2021, 19, 46 1.8 6 100310. Three-dimensional decellularized tumor extracellular matrices with different stiffness as 8.6 bioengineered tumor scaffolds. Bioactive Materials, 2021, 6, 2767-2782. 3D printed porous microgel for lung cancer cells culture in vitro. Materials and Design, 2021, 210, 10 48 3.3 110079. Horizontal transfer of the stemness-related markers EZH2 and GLI1 by neuroblastoma-derived 49 2.2 extracellular vesicles in stromal cells. Translational Research, 2021, 237, 82-97. Three-Dimensional RAW264.7 Cell Model on Electrohydrodynamic Printed Poly(ε-Caprolactone) Scaffolds for In Vitro Study of Anti-Inflammatory Compounds. ACS Applied Bio Materials, 2021, 4, 50 2.3 4 7967-7978. Nanocomposite Scaffolds for Monitoring of Drug Diffusion in Three-Dimensional Cell Environments 4.5 by Surface-Enhanced Raman Spectroscopy. Nano Letters, 2021, 21, 8785-8793. Anti-Cancer Drug Screening with Microfluidic Technology. Applied Sciences (Switzerland), 2021, 11, 52 1.3 14 9418. Nanoparticle Food Applications and Their Toxicity: Current Trends and Needs in Risk Assessment Strategies. Journal of Food Protection, 2022, 85, 355-372. 3D fluid-dynamic ovarian cancer model resembling systemic drug administration for efficacy assay. 54 0.9 15 ALTEX: Alternatives To Animal Experimentation, 2021, 38, 82-94. 3D fluid-dynamic ovarian cancer model resembling systemic drug administration for efficacy assay_suppl. ALTEX: Alternatives To Animal Experimentation, 0, , .

CITATION REPORT

#	Article	IF	CITATIONS
56	Tyrosine kinase inhibitor prodrug-loaded liposomes for controlled release at tumor microenvironment. Journal of Controlled Release, 2021, 340, 318-330.	4.8	8
57	Phototoxicity of two positive-charged diaryl porphyrins in multicellular tumor spheroids. Journal of Photochemistry and Photobiology B: Biology, 2021, 225, 112353.	1.7	4
58	Strategies Using Gelatin Microparticles for Regenerative Therapy and Drug Screening Applications. Molecules, 2021, 26, 6795.	1.7	23
59	Recapitulating the Angiogenic Switch in a Hydrogel-Based 3D In Vitro Tumor-Stroma Model. Bioengineering, 2021, 8, 186.	1.6	6
60	Patient-derived tumor spheroid cultures as a promising tool to assist personalized therapeutic decisions in breast cancer. Translational Cancer Research, 2022, 11, 134-147.	0.4	15
61	Applications of CRISPR-Cas System in Tumor Biology. Oncologie, 2021, 23, 463-492.	0.2	1
62	Realâ€ŧime visualization and quantitation of cell death and cell cycle progression in 2D and 3D cultures utilizing genetically encoded probes. Journal of Cellular Biochemistry, 2022, 123, 782-797.	1.2	3
63	Honeycomb-Like Hydrogel Microspheres for 3D Bulk Construction of Tumor Models. Research, 2022, 2022, 9809763.	2.8	11
64	Patient-derived functional organoids as a personalized approach for drug screening against hepatobiliary cancers. Advances in Cancer Research, 2022, , 319-341.	1.9	2
65	Clinical translation of patient-derived tumour organoids- bottlenecks and strategies. Biomarker Research, 2022, 10, 10.	2.8	27
66	Effect of naturally derived surgical hemostatic materials on the proliferation of A549 human lung adenocarcinoma cells. Materials Today Bio, 2022, 14, 100233.	2.6	4
67	Culture of patient-derived multicellular clusters in suspended hydrogel capsules for pre-clinical personalized drug screening. Bioactive Materials, 2022, 18, 164-177.	8.6	14
74	Ancient Fibrous Materials from Silkworm and Spider Silks: Biomechanical Patterns. SSRN Electronic Journal, 0, , .	0.4	0
75	3D cell cultures toward quantitative high-throughput drug screening. Trends in Pharmacological Sciences, 2022, 43, 569-581.	4.0	32
76	Developing theÂTechnology forÂtheÂProduction ofÂPersonalized Polylactide Plates forÂBone Assemblies Reinforced withÂGlass Fiber. Lecture Notes in Networks and Systems, 2023, , 149-157.	0.5	0
77	Immunogenic Cell Death Activates the Tumor Immune Microenvironment to Boost the Immunotherapy Efficiency. Advanced Science, 2022, 9, .	5.6	140
78	Hydrogel Arrays Enable Increased Throughput for Screening Effects of Matrix Components and Therapeutics in 3D Tumor Models. Journal of Visualized Experiments, 2022, , .	0.2	0
79	Tissue Engineering and Photodynamic Therapy: A New Frontier of Science for Clinical Application -An Up-To-Date Review. Frontiers in Bioengineering and Biotechnology, 0, 10, .	2.0	5

#	Article	IF	CITATIONS
80	Discovery of a Novel Small-Molecule Inhibitor Disrupting TRBP–Dicer Interaction against Hepatocellular Carcinoma via the Modulation of microRNA Biogenesis. Journal of Medicinal Chemistry, 2022, 65, 11010-11033.	2.9	4
82	The Tumor Microenvironment: An Introduction to the Development of Microfluidic Devices. Advances in Experimental Medicine and Biology, 2022, , 115-138.	0.8	1
83	How inclusive are cell lines in preclinical engineered cancer models?. DMM Disease Models and Mechanisms, 2022, 15, .	1.2	5
85	Patientâ€derived cancer organoids for drug screening: Basic technology and clinical application. Journal of Gastroenterology and Hepatology (Australia), 2022, 37, 1446-1454.	1.4	11
86	Cell Proliferation Receptor-Enhanced 3D High-Throughput Screening Model for Optimized Drug Efficacy Evaluation in Breast Cancer Cells. Analytical Chemistry, 2022, 94, 11838-11847.	3.2	4
87	Human Brain Organoid: A Versatile Tool for Modeling Neurodegeneration Diseases and for Drug Screening. Stem Cells International, 2022, 2022, 1-20.	1.2	5
88	In-vitro models of biocompatibility testing for restorative dental materials: From 2D cultures to organs on-a-chip. Acta Biomaterialia, 2022, 150, 58-66.	4.1	17
89	Generation of ring-shaped human iPSC-derived functional heart microtissues in a M¶bius strip configuration. Bio-Design and Manufacturing, 2022, 5, 687-699.	3.9	5
91	Disulfiram increases the efficacy of 5-fluorouracil in organotypic cultures of colorectal carcinoma. Biomedicine and Pharmacotherapy, 2022, 153, 113465.	2.5	5
92	Microarchitectural mimicking of stroma-induced vasculature compression in pancreatic tumors using a 3D engineered model. Bioactive Materials, 2023, 22, 18-33.	8.6	4
93	Patient-by-Patient Deep Transfer Learning for Drug-Response Profiling Using Confocal Fluorescence Microscopy of Pediatric Patient-Derived Tumor-Cell Spheroids. IEEE Transactions on Medical Imaging, 2022, 41, 3981-3999.	5.4	2
94	Patient-Derived Breast Cancer Tissue Cultures for Anti-Endocrine Drug Assays. Methods in Molecular Biology, 2022, , 11-31.	0.4	2
95	Bioprinting and its Use in Tumor-On-A-Chip Technology for Cancer Drug Screening: A Review. International Journal of Bioprinting, 2022, 8, 603.	1.7	7
96	Ancient fibrous biomaterials from silkworm protein fibroin and spider silk blends: Biomechanical patterns. Acta Biomaterialia, 2022, 153, 38-67.	4.1	17
97	3D Multicellular Tumor Spheroids in a Microfluidic Droplet System for Investigation of Drug Resistance. Polymers, 2022, 14, 3752.	2.0	8
98	Balance between the cell viability and death in 3D. Seminars in Cell and Developmental Biology, 2023, 144, 55-66.	2.3	4
99	Digital light processing (DLP)â€based (bio)printing strategies for tissue modeling and regeneration. Aggregate, 2023, 4, .	5.2	16
100	Bioprinting-based automated deposition of single cancer cell spheroids into oxygen sensor microelectrode wells. Lab on A Chip, 2022, 22, 4369-4381.	3.1	9

CITATION REPORT

#	Article	IF	CITATIONS
101	Magnetic-Based Human Tissue 3D Cell Culture: A Systematic Review. International Journal of Molecular Sciences, 2022, 23, 12681.	1.8	4
102	Current approaches to assessing the biological activity of immunocytokines <i>in vitro</i> . , 2022, 21, 10-22.	0.3	0
103	Advances in 3D culture systems for therapeutic discovery and development in brain cancer. Drug Discovery Today, 2023, 28, 103426.	3.2	6
104	Emerging trends in the methodology of environmental toxicology: 3D cell culture and its applications. Science of the Total Environment, 2023, 857, 159501.	3.9	9
105	Chapter 15. Tissue-engineered Cancer Models in Drug Screening. Biomaterials Science Series, 2022, , 415-449.	0.1	0
106	Stiffness-Controlled Hydrogels for 3D Cell Culture Models. Polymers, 2022, 14, 5530.	2.0	4
107	3D Hydrogel Cultures for High-Throughput Drug Discovery. Methods in Molecular Biology, 2023, , 369-381.	0.4	1
108	Antioxidant and Anti-Inflammatory Effects of 6,3',4´- and 7,3´,4´-Trihydroxyflavone on 2D and 3D RAW264.7 Models. Antioxidants, 2023, 12, 204.	2.2	3
109	Opportunities and challenges of hepatocellular carcinoma organoids for targeted drugs sensitivity screening. Frontiers in Oncology, 0, 12, .	1.3	3
110	Biomaterial-based in vitro 3D modeling of glioblastoma multiforme. , 2023, 1, 177-194.		2
111	Fibroblasts Impair Migration and Antitumor Activity of NK-92 Lymphocytes in a Melanoma-on-Chip Model. Bioengineering, 2023, 10, 52.	1.6	2
112	Composite Nanoarchitectonics of Photoactivated Titania-Based Materials with Anticancer Properties. Pharmaceutics, 2023, 15, 135.	2.0	7
113	Synergistic Effect of Coâ€Culturing Breast Cancer Cells and Fibroblasts in the Formation of Tumoroid Clusters and Design of In Vitro 3D Models for the Testing of Anticancer Agents. Advanced Biology, 2023, 7, .	1.4	1
114	Rapid generation of homogenous tumor spheroid microtissues in a scaffold-free platform for high-throughput screening of a novel combination nanomedicine. PLoS ONE, 2023, 18, e0282064.	1.1	6
115	Keeping It Organized: Multicompartment Constructs to Mimic Tissue Heterogeneity. Advanced Healthcare Materials, 2023, 12, .	3.9	2
116	From cells to organoids: The evolution of blood-brain barrier technology for modelling drug delivery in brain cancer. Advanced Drug Delivery Reviews, 2023, 196, 114777.	6.6	8
117	Three-Dimensional (3D) in vitro cell culture protocols to enhance glioblastoma research. PLoS ONE, 2023, 18, e0276248.	1.1	6
118	Head and neck cancer patient-derived tumouroid cultures: opportunities and challenges. British Journal of Cancer, 0, , .	2.9	2

CITATION REPORT

#	Article	IF	CITATIONS
119	Celatin-based cell culture device for construction and X-ray irradiation of a three-dimensional oral cancer model. Analytical Sciences, 2023, 39, 771-778.	0.8	2
120	Realizations of vascularized tissues: From <i>in vitro</i> platforms to <i>in vivo</i> grafts. Biophysics Reviews, 2023, 4, 011308.	1.0	2
121	Quantifying the drug response of patient-derived organoid clusters by aggregated morphological indicators with multi-parameters based on optical coherence tomography. Biomedical Optics Express, 2023, 14, 1703.	1.5	1
122	Numerical investigation of moving gel wall formation in a Y-shaped microchannel. SN Applied Sciences, 2023, 5, .	1.5	2
123	Engineered Tissue in Cancer Research: Techniques, Challenges, and Current Status. Biological and Medical Physics Series, 2023, , 291-324.	0.3	0
124	Selecting the appropriate indirect viability assay for 3D paper-based cultures: a data-driven study. Analyst, The, 0, , .	1.7	0
125	3D Bioprinting of an Endothelialized Liver Lobule-like Construct as a Tumor-Scale Drug Screening Platform. Micromachines, 2023, 14, 878.	1.4	5
126	An Automation Workflow for Highâ€Throughput Manufacturing and Analysis of Scaffoldâ€Supported 3D Tissue Arrays. Advanced Healthcare Materials, 2023, 12, .	3.9	3
135	Applications and sensory utilizations of magnetic levitation in 3D cell culture for tissue Engineering. Molecular Biology Reports, 2023, 50, 7017-7025.	1.0	0
142	Recent Innovations in Strategies for Breast Cancer Therapy by Electrospun Scaffolds: A Review. Journal of Polymers and the Environment, 0, , .	2.4	1
162	Disease models in colorectal cancer research. , 2024, , 457-473.		0
163	Silk protein: an emerging biomaterial for tumor modeling. , 2024, , 629-652.		0