

# Three Dimensional Bioprinting of a Vascularized and Pericyte Keratinocytes, Fibroblasts, Pericytes, and Endothelial Cells

Tissue Engineering - Part A

26, 227-238

DOI: [10.1089/ten.tea.2019.0201](https://doi.org/10.1089/ten.tea.2019.0201)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Could 3D printing be the future for oral soft tissue regeneration?. <i>Bioprinting</i> , 2020, 20, e00100.	2.9	23
2	3D Printing Approach in Dentistry: The Future for Personalized Oral Soft Tissue Regeneration. <i>Journal of Clinical Medicine</i> , 2020, 9, 2238.	1.0	49
3	Skin Wound Healing Process and New Emerging Technologies for Skin Wound Care and Regeneration. <i>Pharmaceutics</i> , 2020, 12, 735.	2.0	569
4	In vivo evaluation of bioprinted prevascularized bone tissue. <i>Biotechnology and Bioengineering</i> , 2020, 117, 3902-3911.	1.7	26
5	Application of 3D Bioprinting Technologies to the Management and Treatment of Diabetic Foot Ulcers. <i>Biomedicines</i> , 2020, 8, 441.	1.4	21
6	Overview of Current Advances in Extrusion Bioprinting for Skin Applications. <i>International Journal of Molecular Sciences</i> , 2020, 21, 6679.	1.8	37
7	Facilitated self-assembly of a prevascularized dermal/epidermal collagen scaffold. <i>Regenerative Medicine</i> , 2020, 15, 2273-2283.	0.8	3
8	Vascularization strategies for skin tissue engineering. <i>Biomaterials Science</i> , 2020, 8, 4073-4094.	2.6	69
9	Whole Organ Engineering: Approaches, Challenges, and Future Directions. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 4277.	1.3	24
10	A Concise Review on Tissue Engineered Artificial Skin Grafts for Chronic Wound Treatment: Can We Reconstruct Functional Skin Tissue In Vitro?. <i>Cells</i> , 2020, 9, 1622.	1.8	95
11	Biofabrication of endothelial cell, dermal fibroblast, and multilayered keratinocyte layers for skin tissue engineering. <i>Biofabrication</i> , 2021, 13, 035030.	3.7	54
12	3D bioprinting dermal-like structures using species-specific ulvan. <i>Biomaterials Science</i> , 2021, 9, 2424-2438.	2.6	19
13	Comparison of the Translational Potential of Human Mesenchymal Progenitor Cells from Different Bone Entities for Autologous 3D Bioprinted Bone Grafts. <i>International Journal of Molecular Sciences</i> , 2021, 22, 796.	1.8	17
14	3D Bioprinting at the Frontier of Regenerative Medicine, Pharmaceutical, and Food Industries. <i>Frontiers in Medical Technology</i> , 2020, 2, 607648.	1.3	32
15	Bioactive Wound Dressings for the Management of Chronic Non Healing Ulcers (CNHU) – A Review of Clinical and Translational Studies. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
16	3D bioprinting. , 2021, , 599-633.		5
17	Recent Advances in the Design of Three-Dimensional and Bioprinted Scaffolds for Full-Thickness Wound Healing. <i>Tissue Engineering - Part B: Reviews</i> , 2022, 28, 160-181.	2.5	19
18	The Effect of a Polyester Nanofibrous Membrane with a Fibrin-Platelet Lysate Coating on Keratinocytes and Endothelial Cells in a Co-Culture System. <i>Nanomaterials</i> , 2021, 11, 457.	1.9	6

#	ARTICLE	IF	CITATIONS
19	Scale-up of a Composite Cultured Skin Using a Novel Bioreactor Device in a Porcine Wound Model. <i>Journal of Burn Care and Research</i> , 2021, 42, 1199-1209.	0.2	5
20	Translational stem cell therapy: vascularized skin grafts in skin repair and regeneration. <i>Journal of Translational Medicine</i> , 2021, 19, 83.	1.8	32
21	Recent Advances in Regenerative Tissue Fabrication: Tools, Materials, and Microenvironment in Hierarchical Aspects. <i>Advanced NanoBiomed Research</i> , 2021, 1, 2000088.	1.7	9
22	Development of Skin-On-A-Chip Platforms for Different Utilizations: Factors to Be Considered. <i>Micromachines</i> , 2021, 12, 294.	1.4	26
23	3D bioprinting of tissue-specific osteoblasts and endothelial cells to model the human jawbone. <i>Scientific Reports</i> , 2021, 11, 4876.	1.6	23
24	Bioinks for 3D Bioprinting: A Scientometric Analysis of Two Decades of Progress. <i>International Journal of Bioprinting</i> , 2021, 7, 337.	1.7	23
25	3D Bioprinting of Functional Skin Substitutes: From Current Achievements to Future Goals. <i>Pharmaceuticals</i> , 2021, 14, 362.	1.7	32
26	The triad of nanotechnology, cell signalling, and scaffold implantation for the successful repair of damaged organs: An overview on soft-tissue engineering. <i>Journal of Controlled Release</i> , 2021, 332, 460-492.	4.8	50
27	Review of Bioprinting in Regenerative Medicine: Naturally Derived Bioinks and Stem Cells. <i>ACS Applied Bio Materials</i> , 2021, 4, 4049-4070.	2.3	19
28	3D Bioprinting of Vascularized Tissues for in vitro and in vivo Applications. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 664188.	2.0	48
29	Recent Advances in Regenerative Tissue Fabrication: Tools, Materials, and Microenvironment in Hierarchical Aspects. <i>Advanced NanoBiomed Research</i> , 2021, 1, 2170053.	1.7	4
30	Effect of Fibrin Concentration on the In Vitro Production of Dermo-Epidermal Equivalents. <i>International Journal of Molecular Sciences</i> , 2021, 22, 6746.	1.8	12
31	Mesoporous Silica Nanoparticles and Mesoporous Bioactive Glasses for Wound Management: From Skin Regeneration to Cancer Therapy. <i>Materials</i> , 2021, 14, 3337.	1.3	25
32	Three-Dimensionally Printed Skin Substitute Using Human Dermal Fibroblasts and Human Epidermal Keratinocytes. <i>Annals of Plastic Surgery</i> , 2021, 86, S628-S631.	0.5	4
33	Bioprinting: A promising approach for tissue regeneration. <i>Bioprinting</i> , 2021, 22, e00130.	2.9	11
34	Vascularization Strategies in Bone Tissue Engineering. <i>Cells</i> , 2021, 10, 1749.	1.8	58
35	A review on biomaterials for ovarian tissue engineering. <i>Acta Biomaterialia</i> , 2021, 135, 48-63.	4.1	33
36	Experimental Models to Study Skin Wound Healing with a Focus on Angiogenesis. <i>Medical Sciences (Basel, Switzerland)</i> , 2021, 9, 55.	1.3	14

#	ARTICLE	IF	CITATIONS
37	3D Bioprinting Constructs to Facilitate Skin Regeneration. <i>Advanced Functional Materials</i> , 2022, 32, 2105080.	7.8	35
38	The simpler, the better: tissue vascularization using the body's own resources. <i>Trends in Biotechnology</i> , 2022, 40, 281-290.	4.9	12
39	Automated fabrication of human skin substitutes: inherent advantages and fundamental challenges. <i>Journal of 3D Printing in Medicine</i> , 0, , .	1.0	0
40	Advances in Skin Tissue Bioengineering and the Challenges of Clinical Translation. <i>Frontiers in Surgery</i> , 2021, 8, 640879.	0.6	25
41	Perspective: 3D bioprinted skin - engineering the skin for medical applications. <i>Annals of 3D Printed Medicine</i> , 2021, 3, 100018.	1.6	0
42	Collagen Bioinks for Bioprinting: A Systematic Review of Hydrogel Properties, Bioprinting Parameters, Protocols, and Bioprinted Structure Characteristics. <i>Biomedicines</i> , 2021, 9, 1137.	1.4	30
43	Progress of 3D Bioprinting in Organ Manufacturing. <i>Polymers</i> , 2021, 13, 3178.	2.0	24
44	Regenerative Engineering Approaches to Scar-Free Skin Regeneration. <i>Regenerative Engineering and Translational Medicine</i> , 2022, 8, 225-247.	1.6	12
45	Vascularization in skin wound healing: where do we stand and where do we go?. <i>Current Opinion in Biotechnology</i> , 2022, 73, 253-262.	3.3	47
46	Pilot Study of the Biological Properties and Vascularization of 3D Printed Bilayer Skin Grafts. <i>International Journal of Bioprinting</i> , 2019, 6, 246.	1.7	28
47	3D skin bioprinting: future potential for skin regeneration. <i>Postepy Dermatologii i Alergologii</i> , 0, , .	0.4	0
48	Wound and Skin Healing in Space: The 3D Bioprinting Perspective. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 720217.	2.0	16
49	Impact of Cell Seeding Density and Cell Confluence on Human Tissue Engineered Skeletal Muscle. <i>Tissue Engineering - Part A</i> , 2022, 28, 420-432.	1.6	3
50	Emerging Technologies in Multi-Material Bioprinting. <i>Advanced Materials</i> , 2021, 33, e2104730.	11.1	100
51	Monitoring calcium-induced epidermal differentiation in vitro using multiphoton microscopy. <i>Journal of Biomedical Optics</i> , 2020, 25, 1.	1.4	5
52	Harnessing Multifaceted Next-Generation Technologies for Improved Skin Wound Healing. <i>ACS Applied Bio Materials</i> , 2021, 4, 7738-7763.	2.3	12
53	Bioprinting Scaffolds for Vascular Tissues and Tissue Vascularization. <i>Bioengineering</i> , 2021, 8, 178.	1.6	14
54	Engineering Functional Skin Constructs: A Quantitative Comparison of Three-Dimensional Bioprinting with Traditional Methods. <i>Experimental Dermatology</i> , 2021, , .	1.4	3

#	ARTICLE	IF	CITATIONS
55	Bioactive wound dressings for the management of chronic non healing ulcers (CNHU) – A review of clinical and translational studies. <i>Materialia</i> , 2022, 21, 101269.	1.3	4
56	Elastin-like Polypeptide-Based Bioink: A Promising Alternative for 3D Bioprinting. <i>Biomacromolecules</i> , 2021, 22, 4956-4966.	2.6	16
57	Cellular Interaction of Human Skin Cells towards Natural Bioink via 3D-Bioprinting Technologies for Chronic Wound: A Comprehensive Review. <i>International Journal of Molecular Sciences</i> , 2022, 23, 476.	1.8	24
58	Tissue engineering in dermatology - from lab to market. <i>Tissue and Cell</i> , 2022, 74, 101717.	1.0	14
59	Burn Wound Healing: Clinical Complications, Medical Care, Treatment, and Dressing Types: The Current State of Knowledge for Clinical Practice. <i>International Journal of Environmental Research and Public Health</i> , 2022, 19, 1338.	1.2	74
60	Bioengineered Efficacy Models of Skin Disease: Advances in the Last 10 Years. <i>Pharmaceutics</i> , 2022, 14, 319.	2.0	4
61	Evolution of 3D bioprinting-from the perspectives of bioprinting companies. <i>Bioprinting</i> , 2022, 25, e00193.	2.9	11
62	3D Bio-printing For Skin Tissue Regeneration: Hopes and Hurdles. <i>Current Stem Cell Research and Therapy</i> , 2022, 17, 415-439.	0.6	4
63	Three-Dimensional Skin Tissue Printing with Human Skin Cell Lines and Mouse Skin-Derived Epidermal and Dermal Cells. <i>Journal of Microbiology and Biotechnology</i> , 2022, 32, 238-247.	0.9	2
65	The 3D Bioprinted Scaffolds for Wound Healing. <i>Pharmaceutics</i> , 2022, 14, 464.	2.0	35
66	Bioinks Enriched with ECM Components Obtained by Supercritical Extraction. <i>Biomolecules</i> , 2022, 12, 394.	1.8	5
67	3D bioprinted, vascularized neuroblastoma tumor environment in fluidic chip devices for precision medicine drug testing. <i>Biofabrication</i> , 2022, 14, 035002.	3.7	28
68	Cell-based dressings: A journey through chronic wound management. , 2022, 135, 212738.		10
70	Hybprinting for musculoskeletal tissue engineering. <i>IScience</i> , 2022, 25, 104229.	1.9	1
71	Tissue Engineering-Based Strategies for Diabetic Foot Ulcer Management. <i>Advances in Wound Care</i> , 2023, 12, 145-167.	2.6	5
72	3D Bioprinting in Skin Related Research: Recent Achievements and Application Perspectives. <i>ACS Synthetic Biology</i> , 2022, 11, 26-38.	1.9	27
73	<sc>3D</sc> bioprinting of an implantable xeno-free vascularized human skin graft. <i>Bioengineering and Translational Medicine</i> , 2023, 8, .	3.9	9
74	Management of the diabetic foot. <i>Seminars in Vascular Surgery</i> , 2022, 35, 219-227.	1.1	5

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75	Biomaterials-Based Regenerative Strategies for Skin Tissue Wound Healing. ACS Applied Bio Materials, 2022, 5, 2069-2106.	2.3	46
76	A 3D printable perfused hydrogel vascular model to assay ultrasound-induced permeability. Biomaterials Science, 2022, 10, 3158-3173.	2.6	3
77	Bioprinting and plastic compression of large pigmented and vascularized human dermo-epidermal skin substitutes by means of a new robotic platform. Journal of Tissue Engineering, 2022, 13, 204173142210885.	2.3	15
78	Native human collagen type I provides a viable physiologically relevant alternative to xenogeneic sources for tissue engineering applications: A comparative in vitro and in vivo study. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2022, , .	1.6	5
79	Innovative Cell and Platelet Rich Plasma Therapies for Diabetic Foot Ulcer Treatment: The Allogeneic Approach. Frontiers in Bioengineering and Biotechnology, 2022, 10, 869408.	2.0	9
80	A Bioprinted Vascularized Skin Substitute with Fibroblasts, Keratinocytes, and Endothelial Progenitor Cells for Skin Wound Healing. SSRN Electronic Journal, 0, , .	0.4	0
81	Bioink Formulation and Machine Learning-Empowered Bioprinting Optimization. Frontiers in Bioengineering and Biotechnology, 0, 10, .	2.0	10
82	Strategies to Promote Vascularization in 3D Printed Tissue Scaffolds: Trends and Challenges. Biomacromolecules, 2022, 23, 2730-2751.	2.6	25
83	Advances in 3D bioprinting of tissues/organs for regenerative medicine and in-vitro models. Biomaterials, 2022, 287, 121639.	5.7	67
84	A focused review on three-dimensional bioprinting technology for artificial organ fabrication. Biomaterials Science, 2022, 10, 5054-5080.	2.6	20
85	Strategies of vascularized skin models in vitro. Biomaterials Science, 0, , .	2.6	4
86	Design of Hydrogel-Based Scaffolds for In Vitro Three-Dimensional Human Skin Model Reconstruction. SSRN Electronic Journal, 0, , .	0.4	0
87	Design of an Integrated Microvascularized Human Skin-on-a-Chip Tissue Equivalent Model. Frontiers in Bioengineering and Biotechnology, 0, 10, .	2.0	8
88	Living skin on a robot. Matter, 2022, 5, 2190-2208.	5.0	15
89	Planar and Curvilinear Bioprinted Tri-Cell-Laden Hydrogel for Healing Irregular Chronic Wounds. Advanced Healthcare Materials, 2022, 11, .	3.9	12
90	3D Bioprinting: An Enabling Technology to Understand Melanoma. Cancers, 2022, 14, 3535.	1.7	6
91	Innovative Treatment Strategies to Accelerate Wound Healing: Trajectory and Recent Advancements. Cells, 2022, 11, 2439.	1.8	57
92	Perspective Chapter: Design and Characterization of Natural and Synthetic Soft Polymeric Materials with Biomimetic 3D Microarchitecture for Tissue Engineering and Medical Applications. , 0, , .		0

#	ARTICLE	IF	CITATIONS
93	A bioprinted vascularized skin substitute with fibroblasts, keratinocytes, and endothelial progenitor cells for skin wound healing. <i>Bioprinting</i> , 2022, 28, e00237.	2.9	1
94	Biological multiscale computational modeling: A promising tool for 3D bioprinting and tissue engineering. <i>Bioprinting</i> , 2022, 28, e00234.	2.9	1
95	Expanding tubular microvessels on stiff substrates with endothelial cells and pericytes from the same adult tissue. <i>Journal of Tissue Engineering</i> , 2022, 13, 204173142211253.	2.3	2
96	3D Printing and Bioprinting: Near Future Prospectives. , 2022, , 113-121.		0
97	Natural polymers for wound dressing applications. <i>Studies in Natural Products Chemistry</i> , 2022, , 367-441.	0.8	6
98	Electrospun Poly(3-Hydroxybutyrate-Co-3-Hydroxyvalerate)/Olive Leaf Extract Fiber Mesh as Prospective Bio-Based Scaffold for Wound Healing. <i>Molecules</i> , 2022, 27, 6208.	1.7	6
99	4D Biofabrication of Mechanically Stable Tubular Constructs Using Shape Morphing Porous Bilayers for Vascularization Application. <i>Macromolecular Bioscience</i> , 2023, 23, .	2.1	5
100	Properties of Collagen/Sodium Alginate Hydrogels for Bioprinting of Skin Models. <i>Journal of Bionic Engineering</i> , 2023, 20, 105-118.	2.7	8
101	Design of hydrogel-based scaffolds for in vitro three-dimensional human skin model reconstruction. <i>Acta Biomaterialia</i> , 2022, 153, 13-37.	4.1	15
103	3D bioprinted mesenchymal stromal cells in skin wound repair. <i>Frontiers in Surgery</i> , 0, 9, .	0.6	2
104	Spongy-like hydrogels prevascularization with the adipose tissue vascular fraction delays cutaneous wound healing by sustaining inflammatory cell influx. <i>Materials Today Bio</i> , 2022, 17, 100496.	2.6	0
105	3D Bioprinting for Pancreas Engineering/Manufacturing. <i>Polymers</i> , 2022, 14, 5143.	2.0	3
106	Organotypic cultures as aging associated disease models. <i>Aging</i> , 2022, 14, 9338-9383.	1.4	3
107	3D-Printed PLA/Gel hybrid in liver tissue engineering: Effects of architecture on biological functions. <i>Biotechnology and Bioengineering</i> , 2023, 120, 836-851.	1.7	2
108	Bioprinted 3D outer retina barrier uncovers RPE-dependent choroidal phenotype in advanced macular degeneration. <i>Nature Methods</i> , 2023, 20, 149-161.	9.0	18
109	In Vitro and In Vivo Characterization Methods for Evaluation of Modern Wound Dressings. <i>Pharmaceutics</i> , 2023, 15, 42.	2.0	13
111	Advances in 3D skin bioprinting for wound healing and disease modeling. <i>International Journal of Energy Production and Management</i> , 2023, 10, .	1.9	9
112	Advances and Innovations of 3D Bioprinting Skin. <i>Biomolecules</i> , 2023, 13, 55.	1.8	5

#	ARTICLE	IF	CITATIONS
113	CD146 expression profile in human skin and pre-vascularized dermo-epidermal skin substitutes in vivo. Journal of Biological Engineering, 2023, 17, .	2.0	1
114	3D bioprinting of heterogeneous tissue-engineered skin containing human dermal fibroblasts and keratinocytes. Biomaterials Science, 2023, 11, 2461-2477.	2.6	11
115	Development and Evaluation of a Low-Cost LEGO 3D Bioprinter: From Building Blocks to Building Blocks of Life. Advanced Materials Technologies, 2023, 8, .	3.0	2
116	Advances in skin-on-a-chip and skin tissue engineering. , 2023, , 123-166.		1
117	Engineering edgeless human skin with enhanced biomechanical properties. Science Advances, 2023, 9, .	4.7	6
118	Recent advances in biofabrication strategies based on bioprinting for vascularized tissue repair and regeneration. Materials and Design, 2023, 229, 111885.	3.3	4
119	3D Printing as a Technological Strategy for the Personalized Treatment of Wound Healing. AAPS PharmSciTech, 2023, 24, .	1.5	12
120	Design and bioprinting for tissue interfaces. Biofabrication, 2023, 15, 022002.	3.7	3
121	Collagen-based bioinks for regenerative medicine: Fabrication, application and prospective. Medicine in Novel Technology and Devices, 2023, 17, 100211.	0.9	8
122	Current Advances in Wound Healing and Regenerative Medicine. Current Stem Cell Research and Therapy, 2024, 19, 277-291.	0.6	1
123	Engineering high throughput screening platforms of cervical cancer. Journal of Biomedical Materials Research - Part A, 2023, 111, 747-764.	2.1	7
124	Immunity-on-a-Chip: Integration of Immune Components into the Scheme of Organ-on-a-Chip Systems. Advanced Biology, 2023, 7, .	1.4	0
125	Modelling the Complexity of Human Skin In Vitro. Biomedicines, 2023, 11, 794.	1.4	11
126	Evaluation of the effect of 3D-bioprinted gingival fibroblast-encapsulated ADM scaffolds on keratinized gingival augmentation. Journal of Periodontal Research, 2023, 58, 564-574.	1.4	1
127	Point of care approaches to 3D bioprinting for wound healing applications. Progress in Biomedical Engineering, 2023, 5, 023002.	2.8	3
148	Basic Aspects of Skin Tissue Engineering: Cells, Biomaterials, Scaffold Fabrication Techniques, and Signaling Factors. Journal of Medical and Biological Engineering, 2023, 43, 508-521.	1.0	1
153	Bioprinting for Therapeutics. , 2023, , 245-268.		0
156	Skin Substitutes: An Overview of Current State of the Art. IFMBE Proceedings, 2024, , 14-21.	0.2	0



#	ARTICLE	IF	CITATIONS
160	Skin Regeneration: Methods and Directions for Clinical Application. , 2024, , .		0