Direct human cartilage repair using three-dimensional bioprinting technology

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#	Paper	IF	Citations
527	Thermal inkjet printing in tissue engineering and regenerative medicine. **2012**, 6, 149-55		347
526	Printing and prototyping of tissues and scaffolds. **2012**, 338, 921-6		816
525	Rapid-prototyped collagen scaffolds reinforced with PCL/β-TCP nanofibres to obtain high cell seeding efficiency and enhanced mechanical properties for bone tissue regeneration. **2012**, 22, 16880		32
524	Synergistic action of fibroblast growth factor-2 and transforming growth factor-beta1 enhances bioprinted human neocartilage formation. **2012**, 109, 2357-68		90
523	Enhanced human bone marrow mesenchymal stem cell functions in novel 3D cartilage scaffolds with hydrogen treated multi-walled carbon nanotubes. **2013**, 24, 365102		53
522	Chemical tailoring of gelatin to adjust its chemical and physical properties for functional bioprinting. **2013**, 1, 5675-5685		146
521	25th anniversary article: Engineering hydrogels for biofabrication. **2013**, 25, 5011-28		1194
520	Bio-ink for on-demand printing of living cells. **2013**, 1, 224-230		153
519	Bioprinting toward organ fabrication: challenges and future trends. **2013**, 60, 691-9		431
518	Accelerated myotube formation using bioprinting technology for biosensor applications. **2013**, 35, 315-21		73
517	Evaluation of cell viability and functionality in vessel-like bioprintable cell-laden tubular channels. **2013**, 135, 91011		177
516	A selected review of the recent advances in craniomaxillofacial bone tissue engineering. **2013**, 21, 389-95		5
515	Cell and organ printing turns 15: Diverse research to commercial transitions. **2013**, 38, 834-843		73
514	Novel Biologically Inspired Nanostructured Scaffolds for Directing Chondrogenic Differentiation of Mesenchymal Stem Cells. **2013**, 1498, 59-66		1
513	Growth factor directed chondrogenic differentiation of porcine bone marrow-derived progenitor cells. **2013**, 24, 1026-30		3
512	Tissue engineered skin substitutes created by laser-assisted bioprinting form skin-like structures in the dorsal skin fold chamber in mice. **2013**, 8, e57741		413
511	3-D Printing in Organ Transplantation. **2014**, 34, 158		5

510	Inkjet printing biomaterials for tissue engineering: bioprinting. **2014**, 59, 430-448		193
509	Biomaterials for tissue engineering. **2014**, 42, 323-37		115
508	On the road to bioartificial organs. **2014**, 466, 1847-57		17
507	Three-dimensional printed trileaflet valve conduits using biological hydrogels and human valve interstitial cells. **2014**, 10, 1836-46		302
506	Bioinspired scaffolds for osteochondral regeneration. *Tissue Engineering - Part A*, **2014**, 20, 2052-76	3.9	78
505	Bioactive nanoparticles stimulate bone tissue formation in bioprinted three-dimensional scaffold and human mesenchymal stem cells. **2014**, 9, 1304-11		228
504	Tissue Engineering: Future Perspectives. **2014**, 83-123		11
503	Synthesis and high-throughput processing of polymeric hydrogels for 3D cell culture. **2014**, 25, 1581-601		40
502	Biofabrication of tissue constructs by 3D bioprinting of cell-laden microcarriers. **2014**, 6, 035020		256
501	Engineering a morphogenetically active hydrogel for bioprinting of bioartificial tissue derived from human osteoblast-like SaOS-2 cells. **2014**, 35, 8810-8819		130
500	3D bioprinting of tissues and organs. **2014**, 32, 773-85		3876
499	Three-dimensional osteogenic and chondrogenic systems to model osteochondral physiology and degenerative joint diseases. **2014**, 239, 1080-95		51
498	3D printing of composite tissue with complex shape applied to ear regeneration. **2014**, 6, 024103		254
497	Combinatorial scaffold morphologies for zonal articular cartilage engineering. **2014**, 10, 2065-75		101
496	Excitation propagation in three-dimensional engineered hearts using decellularized extracellular matrix. **2014**, 35, 7839-50		38
495	Human cartilage tissue fabrication using three-dimensional inkjet printing technology. **2014**,		42
494	3D bioprinting of photocrosslinkable hydrogel constructs. **2015**, 132, n/a-n/a		109
493	Direct 3D Printing of Shear-Thinning Hydrogels into Self-Healing Hydrogels. **2015**, 27, 5075-9		648

492	Applications of three-dimensional printing technology in urological practice. **2015**, 116, 697-702	60
491	3D Cell Culture in Alginate Hydrogels. **2015**, 4, 133-61	231
490	3D Bioprinting of Cartilage for Orthopedic Surgeons: Reading between the Lines. **2015**, 2, 39	66
489	Use of Adult Stem Cells for Cartilage Tissue Engineering: Current Status and Future Developments. **2015**, 2015, 438026	49
488	Use of 3-Dimensional Printing in Spine Care. **2015**, 16, 1-5	3
487	A review on 3D printed bioimplants. **2015**, 16, 1035-1046	99
486	Fabrication of three-dimensional bioplotted hydrogel scaffolds for islets of Langerhans transplantation. **2015**, 7, 025009	107
485	A novel bioprinting method and system for forming hybrid tissue engineering constructs. **2015**, 7, 045008	108
484	A simple and high-resolution stereolithography-based 3D bioprinting system using visible light crosslinkable bioinks. **2015**, 7, 045009	349
483	Creation of Highly Defined Mesenchymal Stem Cell Patterns in Three Dimensions by Laser-Assisted Bioprinting. **2015**, 6,	14
482	Prospect for kidney bioengineering: shortcomings of the status quo. **2015**, 15, 547-58	23
481	Tissue Engineering Applications of Three-Dimensional Bioprinting. **2015**, 72, 777-82	113
480	Nanotechnology: A Toolkit for Cell Behavior. **2015**, 1-24	1
479	Cartilage 3D Printing. **2015**, 265-280	
478	3D printing for regenerative medicine: From bench to bedside. **2015**, 40, 145-154	33
477	Inkjet-bioprinted acrylated peptides and PEG hydrogel with human mesenchymal stem cells promote robust bone and cartilage formation with minimal printhead clogging. **2015**, 10, 1568-77	216
476	Cartilage regeneration using zonal chondrocyte subpopulations: a promising approach or an overcomplicated strategy?. **2015**, 9, 669-78	41
475	Biochemie 2014. **2015**, 63, 306-314	

474	Three-dimensional bio-printing. **2015**, 58, 411-9	53
473	Bioprinting a cardiac valve. **2015**, 33, 1503-21	105
472	Office Chromatography: Precise printing of sample solutions on miniaturized thin-layer phases and utilization for scanning Direct Analysis in Real Time mass spectrometry. **2015**, 1413, 127-34	15
471	Challenges in engineering osteochondral tissue grafts with hierarchical structures. **2015**, 15, 1583-99	26
470	Biofabrication of 3D constructs: fabrication technologies and spider silk proteins as bioinks. **2015**, 87, 737-749	42
469	Bone tissue engineering. **2015**, 97-134	7
468	Recent advances in 3D printing of biomaterials. **2015**, 9, 4	963
467	Bioprinting scale-up tissue and organ constructs for transplantation. **2015**, 33, 395-400	221
466	Application of Additive Manufacturing in Oral and Maxillofacial Surgery. **2015**, 73, 2408-18	54
465	Printed Dual Cell Arrays for Multiplexed Sensing. **2015**, 1, 287-294	14
464	Bioinks for Bioprinting. **2015**, 1-31	2
463	Polymers for Bioprinting. **2015**, 229-248	44
462	Hydrogels for 3D Bioprinting Applications. **2015**, 249-270	12
461	Bioprinting of Three-Dimensional Tissues and Organ Constructs. **2015**, 283-292	1
460	Bioprinting of Cartilage: Recent Progress on Bioprinting of Cartilage. **2015**, 309-315	
459	Hydrogels for Cell Encapsulation and Bioprinting. **2015**, 89-108	2
458	Bioprinted Scaffolds for Cartilage Tissue Engineering. **2015**, 1340, 161-9	13
457	Improved properties of bone and cartilage tissue from 3D inkjet-bioprinted human mesenchymal stem cells by simultaneous deposition and photocrosslinking in PEG-GelMA. **2015**, 37, 2349-55	218

456	Material for Bioprinting. **2015**, 117-163		
455	Applications of Bioprinting: Challenges and Potential. **2015**, 255-265		
454	Printable and flexible electronics: from TFTs to bioelectronic devices. **2015**, 3, 12347-12363		54
453	A developmentally inspired combined mechanical and biochemical signaling approach on zonal lineage commitment of mesenchymal stem cells in articular cartilage regeneration. **2015**, 7, 112-27		34
452	Three-dimensional printing of nanomaterial scaffolds for complex tissue regeneration. **2015**, 21, 103-14		144
451	Tissue-engineered cartilage: the crossroads of biomaterials, cells and stimulating factors. **2015**, 15, 153-82		64
450	Development of novel three-dimensional printed scaffolds for osteochondral regeneration. *Tissue Engineering - Part A*, **2015**, 21, 403-15	3.9	70
449	Biomimetic nanocomposite hydrogels for cartilage regeneration. **2016**, 259-281		0
448	Implant Materials and Their Processing Technologies. **2016**,		6
447	Additive Manufacturing of Biomedical Constructs with Biomimetic Structural Organizations. **2016**, 9,		14
446	Current Status of Bioinks for Micro-Extrusion-Based 3D Bioprinting. **2016**, 21,		258
445	Bioprinting and Differentiation of Stem Cells. **2016**, 21,		88
444	Three-dimensional printing in orthopaedic surgery: review of current and future applications. **2016**, 86, 648-53		75
443	Microfluidic Bioprinting of Heterogeneous 3D Tissue Constructs Using Low-Viscosity Bioink. **2016**, 28, 677-84		530
442	Building Blocks for Bottom-Up Neural Tissue Engineering: Tools for In Vitro Assembly and Interrogation of Neural Circuits. **2016**, 123-144		1
441	Three-dimensional bioprinting speeds up smart regenerative medicine. **2016**, 3, 331-344		11
440	Design considerations and challenges for mechanical stretch bioreactors in tissue engineering. **2016**, 32, 543-53		14
439	Miniaturization of Instrumental Planar Chromatography with Focus on Mass Spectrometry. **2016**, 79, 797-810		11

438	Tubular organ epithelialisation. **2016**, 7, 2041731416683950	9
437	Drop-on-demand inkjet-based cell printing with 30-m nozzle diameter for cell-level accuracy. **2016**, 10, 064110	36
436	Advances in three-dimensional bioprinting for hard tissue engineering. **2016**, 13, 622-635	39
435	Advances in Bioprinting Technologies for Craniofacial Reconstruction. **2016**, 34, 700-710	64
434	A Review of 3D Printing Techniques and the Future in Biofabrication of Bioprinted Tissue. **2016**, 74, 93-8	129
433	Application areas of 3D bioprinting. **2016**, 21, 1257-71	190
432	Should we use cells, biomaterials, or tissue engineering for cartilage regeneration?. **2016**, 7, 56	105
431	Current Trends on Medical and Pharmaceutical Applications of Inkjet Printing Technology. **2016**, 33, 1799-816	66
430	Three-dimensional printing of biological matters. **2016**, 1, 1-17	81
429	Multiplex cell microarrays for high-throughput screening. **2016**, 16, 4248-4262	20
428	Bioink properties before, during and after 3D bioprinting. **2016**, 8, 032002	537
427	Development of Polyelectrolyte Chitosan-gelatin Hydrogels for Skin Bioprinting. **2016**, 49, 105-112	49
426	3D printed structures for delivery of biomolecules and cells: tissue repair and regeneration. **2016**, 4, 7521-7539	49
425	Inkjet- and Extrusion-Based Technologies. **2016**, 121-160	
424	Differences in time-dependent mechanical properties between extruded and molded hydrogels. **2016**, 8, 035012	24
423	Innovation in Layer-by-Layer Assembly. **2016**, 116, 14828-14867	521
422	Bio-printing cell-laden Matrigel-agarose constructs. **2016**, 31, 684-692	64
421	Three-dimensional bioprinting using self-assembling scalable scaffold-free "tissue strands" as a new bioink. **2016**, 6, 28714	173

420	A comprehensive review on droplet-based bioprinting: Past, present and future. **2016**, 102, 20-42		415
419	Bioprinting the Cancer Microenvironment. **2016**, 2, 1710-1721		148
418	Three-dimensional assembly of tissue-engineered cartilage constructs results in cartilaginous tissue formation without retainment of zonal characteristics. **2016**, 10, 315-24		24
417	Inkjet printing Schwann cells and neuronal analogue NG108-15 cells. **2016**, 8, 015017		68
416	Enhanced human bone marrow mesenchymal stem cell chondrogenic differentiation in electrospun constructs with carbon nanomaterials. **2016**, 97, 1-13		61
415	Control of Retinal Ganglion Cell Positioning and Neurite Growth: Combining 3D Printing with Radial Electrospun Scaffolds. *Tissue Engineering - Part A*, **2016**, 22, 286-94	3.9	47
414	A synergistic approach to the design, fabrication and evaluation of 3D printed micro and nano featured scaffolds for vascularized bone tissue repair. **2016**, 27, 064001		106
413	Clinical application of three-dimensional printing in the personalized treatment of complex spinal disorders. **2016**, 19, 31-4		38
412	A 3D bioprinting system to produce human-scale tissue constructs with structural integrity. **2016**, 34, 312-9		1602
411	3D Printing of Organs for Transplantation: Where Are We and Where Are We Heading?. **2016**, 3, 93-99		20
410	Bio-inspired 3D microenvironments: a new dimension in tissue engineering. **2016**, 11, 022001		66
409	3D bioprinting for engineering complex tissues. **2016**, 34, 422-434		861
408	Strategies and Molecular Design Criteria for 3D Printable Hydrogels. **2016**, 116, 1496-539		461
407	Three-dimensional bioprinting in tissue engineering and regenerative medicine. **2016**, 38, 203-11		142
406	Three-Dimensional Printing and Medical Imaging: A Review of the Methods and Applications. **2016**, 45, 2-9		219
405	Cells on chip for multiplex screening. **2016**, 76, 29-37		21
404	3D-Printing Technologies for Craniofacial Rehabilitation, Reconstruction, and Regeneration. **2017**, 45, 45-57		96
403	3D Bioprinting for Tissue and Organ Fabrication. **2017**, 45, 148-163		368

402	Bioprinting: an assessment based on manufacturing readiness levels. **2017**, 37, 333-354	23
401	Printing of Three-Dimensional Tissue Analogs for Regenerative Medicine. **2017**, 45, 115-131	49
400	Three-Dimensional Printing of Tissue/Organ Analogues Containing Living Cells. **2017**, 45, 180-194	50
399	3D Bioprinting: New Directions in Articular Cartilage Tissue Engineering. **2017**, 3, 2657-2668	42
398	Three-Dimensional Bioprinting: Toward the Era of Manufacturing Human Organs as Spare Parts for Healthcare and Medicine. **2017**, 23, 245-256	53
397	The bioink: A comprehensive review on bioprintable materials. **2017**, 35, 217-239	528
396	Current Progress in Bioprinting. **2017**, 227-259	4
395	Microvalve-based bioprinting - process, bio-inks and applications. **2017**, 5, 632-647	112
394	Droplet-Based Bioprinting * *With contributions by Hemanth Gudupati and Madhuri Dey, The Pennsylvania State University.. **2017**, 125-163	1
393	Mechanical properties and structure-function relationships of human chondrocyte-seeded cartilage constructs after in vitro culture. **2017**, 35, 2298-2306	12
392	3D printing families. **2017**, 21-42	12
391	3D bioprinting of soft materials-based regenerative vascular structures and tissues. **2017**, 123, 279-291	46
390	Extrusion Bioprinting of Shear-Thinning Gelatin Methacryloyl Bioinks. **2017**, 6, 1601451	233
389	Injectable and 3D Bioprinted Polysaccharide Hydrogels: From Cartilage to Osteochondral Tissue Engineering. **2017**, 18, 1-26	135
388	From intricate to integrated: Biofabrication of articulating joints. **2017**, 35, 2089-2097	27
387	Integrated 3D printed scaffolds and electrical stimulation for enhancing primary human cardiomyocyte cultures. **2017**, 6, 18-24	13
386	Cartilage engineering in reconstructive surgery: auricular, nasal and tracheal engineering from a surgical perspective. **2017**, 12, 303-314	23
385	Bioprinting Cartilage Tissue from Mesenchymal Stem Cells and PEG Hydrogel. **2017**, 1612, 391-398	32

384	Current and emerging applications of 3D printing in medicine. **2017**, 9, 024102	252
383	3D bioprinting for reconstructive surgery: Principles, applications and challenges. **2017**, 70, 1155-1170	62
382	Emerging Biofabrication Strategies for Engineering Complex Tissue Constructs. **2017**, 29, 1606061	209
381	Bioprinters in Use Today. **2017**, 65-80	
380	Printing, folding and assembly methods for forming 3D mesostructures in advanced materials. **2017**, 2,	372
379	Bioengineering cardiac constructs using 3D printing. **2017**, 1, 123-139	34
378	Photocrosslinking-based bioprinting: Examining crosslinking schemes. **2017**, 5, 10-18	56
377	Recent advances in cell-laden 3D bioprinting: materials, technologies and applications. **2017**, 1, 245-268	5
376	Bioinks for bioprinting functional meniscus and articular cartilage. **2017**, 1, 269-290	20
375	Mesenchymal Stem Cells: Potential Role in the Treatment of Osteochondral Lesions of the Ankle. **2017**, 12, 1700070	5
374	Printing@Clinic: From Medical Models to Organ Implants. **2017**, 3, 3083-3097	16
373	3D Printing for Cell Therapy Applications. **2017**, 227-248	4
372	Novel curved surface preparation technique for knee resurfacing. **2017**, 49, 89-93	
371	3D printing for clinical application in otorhinolaryngology. **2017**, 274, 4079-4089	37
370	Visible light-based stereolithography bioprinting of cell-adhesive gelatin hydrogels. **2017**, 2017, 1599-1602	22
369	In situ repair of bone and cartilage defects using 3D scanning and 3D printing. **2017**, 7, 9416	80
368	Bioprinting: uncovering the utility layer-by-layer. **2017**, 1, 165-179	8
367	Chitosan: Application in tissue engineering and skin grafting. **2017**, 24, 1	57

366	3D bioprinting and the current applications in tissue engineering. **2017**, 12, 1600734	110
365	Tissue Engineering in Hand Surgery: A˚Technology Update. **2017**, 42, 727-735	14
364	3D bioprinting for musculoskeletal applications. **2017**, 1, 191-211	24
363	Integrating three-dimensional printing and nanotechnology for musculoskeletal regeneration. **2017**, 28, 382001	19
362	Bioprinting Complex 3D Tissue and Organs. **2017**, 957-971	7
361	Three-dimensional bioprinting of volumetric tissues and organs. **2017**, 42, 585-592	29
360	Multimaterial, heterogeneous, and multicellular three-dimensional bioprinting. **2017**, 42, 578-584	15
359	3D Bioprinting for Cartilage and Osteochondral Tissue Engineering. **2017**, 6, 1700298	158
358	Industrial Applications of 3D Inkjet Printing in the Life Sciences. **2017**, 661-680	
357	Bio-inks for 3D bioprinting: recent advances and future prospects. **2017**, 8, 4451-4471	189
356	Combined effects of oscillating hydrostatic pressure, perfusion and encapsulation in a novel bioreactor for enhancing extracellular matrix synthesis by bovine chondrocytes. **2017**, 370, 179-193	8
355	Current progresses of 3D bioprinting based tissue engineering. **2017**, 5, 136-142	8
354	Bioresorbable polymers for bioprinting applications. **2017**, 331-362	1
353	Three-Dimensional Bioprinting and Its Potential in the Field of Articular Cartilage Regeneration. **2017**, 8, 327-340	64
352	Applications of 3D printing in the management of severe spinal conditions. **2017**, 231, 471-486	44
351	Evaluation of bioprinter technologies. **2017**, 13, 179-200	108
350	Collagen and Elastin Biomaterials for the Fabrication of Engineered Living Tissues. **2017**, 3, 694-711	97
349	NR2F2 regulates chondrogenesis of human mesenchymal stem cells in bioprinted cartilage. **2017**, 114, 208-216	26

348	Three-Dimensional Printing Articular Cartilage: Recapitulating the Complexity of Native Tissue. **2017**, 23, 225-236	40
347	3D printing of biocomposites for osteochondral tissue engineering. **2017**, 261-302	11
346	Current perspectives on biological approaches for osteoarthritis. **2017**, 1410, 26-43	34
345	Biomimetic Orthopedic Materials. **2017**, 109-139	2
344	The Bioink * *With contributions by Monika Hospodiuk and Madhuri Dey, The Pennsylvania State University.. **2017**, 41-92	3
343	Bioprinter Technologies. **2017**, 199-241	3
342	Applications of 3D Bioprinting * *With minor contributions by Dr. Weijie Peng, The Pennsylvania State University.. **2017**, 271-312	0
341	Future Trends. **2017**, 313-336	1
340	Application of Extrusion-Based Hydrogel Bioprinting for Cartilage Tissue Engineering. **2017**, 18,	87
339	Recent Advances in Bioink Design for 3D Bioprinting of Tissues and Organs. **2017**, 5, 23	237
338	Development of a Robotic Arm Based Hydrogel Additive Manufacturing System for In-Situ Printing. **2017**, 7, 73	24
337	Engineering Niches for Cartilage Tissue Regeneration. **2017**, 531-546	2
336	2.9 Materials as Artificial Stem Cell Microenvironments ?. **2017**, 179-201	
335	Recent advances in hydrogels for cartilage tissue engineering. **2017**, 33, 59-75	154
334	3D bioprinting: an emerging technology full of opportunities and challenges. **2018**, 1, 2-13	78
333	3D bio-printing technology for body tissues and organs regeneration. **2018**, 42, 187-202	20
332	3D printing for cardiovascular tissue engineering: a review. **2018**, 33, 433-442	19
331	Biopolymers and polymers in the search of alternative treatments for meniscal regeneration: State of the art and future trends. **2018**, 12, 51-71	65

330	Multifaceted polymeric materials in three-dimensional processing (3DP) technologies: Current progress and prospects. **2018**, 29, 1586-1602	5
329	Additive manufacturing (3D printing): A review of materials, methods, applications and challenges. **2018**, 143, 172-196	2654
328	3D Bioprinting in Nipple-Areola Complex Reconstruction. **2018**, 587-606	1
327	Three-dimensional printing of alginate-gelatin-agar scaffolds using free-form motor assisted microsyringe extrusion system. **2018**, 25, 1	25
326	Recent advances in 3D bioprinting for the regeneration of functional cartilage. **2018**, 13, 73-87	18
325	3D-Printed Biomaterials for Guided Tissue Regeneration. **2018**, 2, 1700306	18
324	A Stereolithography-Based 3D Printed Hybrid Scaffold for In Situ Cartilage Defect Repair. **2018**, 18, 1700267	23
323	Exploiting Advanced Hydrogel Technologies to Address Key Challenges in Regenerative Medicine. **2018**, 7, e1700939	66
322	From de novo peptides to native proteins: advancements in biomaterial scaffolds for acute ischemic stroke repair. **2018**, 13, 034103	13
321	Some Examples of 3D Bio-printed Tissues. **2018**, 169-215	
320	Recent trends in bioinks for 3D printing. **2018**, 22, 11	368
319	3D bioprinting for cell culture and tissue fabrication. **2018**, 1, 45-61	39
318	Mimetic Hierarchical Approaches for Osteochondral Tissue Engineering. **2018**, 1058, 143-170	5
317	Biofabrication strategies for 3D in vitro models and regenerative medicine. **2018**, 3, 21-37	317
316	Inkjet-Spray Hybrid Printing for 3D Freeform Fabrication of Multilayered Hydrogel Structures. **2018**, 7, e1800050	34
315	3D bioprinting Flow cytometry as analytical strategy for 3D cell structures. **2018**, 11, e00023	5
314	Three-Dimensional Printing of Wood-Derived Biopolymers: A Review Focused on Biomedical Applications. **2018**, 6, 5663-5680	127
313	Mechanical characterization and numerical simulation of a subcutaneous implantable 3D printed cell encapsulation system. **2018**, 82, 133-144	2

312	3D printing: prospects and challenges. **2018**, 299-379	6
311	3D bioprinting and its in vivo applications. **2018**, 106, 444-459	112
310	In situ handheld three-dimensional bioprinting for cartilage regeneration. **2018**, 12, 611-621	155
309	Bioprinting and its applications in tissue engineering and regenerative medicine. **2018**, 107, 261-275	172
308	Additive manufacturing of biomaterials. **2018**, 93, 45-111	337
307	3D Bioprinting for Tissue Engineering. **2018**, 105-123	4
306	Organ Bioprinting: Are We There Yet?. **2018**, 7, 1701018	45
305	Embedded Multimaterial Extrusion Bioprinting. **2018**, 23, 154-163	46
304	The Fabrication of Tissue Engineering Scaffolds by Inkjet Printing Technology. **2018**, 934, 129-133	1
303	The role of photonics and natural curing agents of TGF-β in treatment of osteoarthritis. **2018**, 5, 15540-15549	5
302	Three-dimensional bioprinting for organ bioengineering: promise and pitfalls. **2018**, 23, 649-656	7
301	An Introduction to 3D Bioprinting: Possibilities, Challenges and Future Aspects. **2018**, 11,	147
300	3D Printed Polymeric Hydrogels for Nerve Regeneration. **2018**, 10,	22
299	Current Trends and Challenges in Biofabrication Using Biomaterials and Nanomaterials: Future Perspectives for 3D/4D Bioprinting. **2018**, 373-421	5
298	Evaluation of bioink printability for bioprinting applications. **2018**, 5, 041304	83
297	Orthogonal programming of heterogeneous micro-mechano-environments and geometries in three-dimensional bio-stereolithography. **2018**, 9, 4096	39
296	Emergence of Three-Dimensional Printing Technology and Its Utility in Spine Surgery. **2018**, 12, 365-371	17
295	Bioprinting of tissue engineering scaffolds. **2018**, 9, 2041731418802090	84

294	Evaluation of a polyvinyl alcohol-alginate based hydrogel for precise 3D bioprinting. **2018**, 106, 2944-2954	23
293	Composite Double-Network Hydrogels To Improve Adhesion on Biological Surfaces. **2018**, 10, 38692-38699	47
292	Optimization of cell-laden bioinks for 3D bioprinting and efficient infection with influenza A virus. **2018**, 8, 13877	74
291	Tailoring Bioengineered Scaffolds for Regenerative Medicine. **2018**,	3
290	Fabrication and Printing of Multi-material Hydrogels. **2018**, 397-430	
289	Photopolymerizable Materials for Cell Encapsulation. **2018**, 353-396	4
288	Translation and Applications of Biofabrication. **2018**, 451-484	1
287	Additive Manufacturing for Tissue Engineering. **2018**, 3-54	5
286	Inkjet Printing for Biofabrication. **2018**, 283-301	6
285	Current advances in solid free-form techniques for osteochondral tissue engineering. **2018**, 1, 171-181	5
284	A Review of 3D Printing Technology for Medical Applications. **2018**, 4, 729-742	257
283	3D bioprinting of polysaccharides and their derivatives: From characterization to application. **2018**, 105-141	12
282	3D Printing and Electrospinning of Composite Hydrogels for Cartilage and Bone Tissue Engineering. **2018**, 10,	96
281	Advances in Regenerative Medicine and Tissue Engineering: Innovation and Transformation of Medicine. **2018**, 2018, 2495848	163
280	3D bioprinting skin. **2018**, 367-376	
279	Introduction to Science and Engineering Principles for the Development of Bioinspired Materials. **2018**, 1-16	
278	3D bioprinting of tissues and organs for regenerative medicine. **2018**, 132, 296-332	232
277	Candidate bioinks for 3D bioprinting soft tissue. **2018**, 145-172	6

276	3D bioprinting cartilage. **2018**, 277-304	7
275	Visible Light Photoinitiation of Cell-Adhesive Gelatin Methacryloyl Hydrogels for Stereolithography 3D Bioprinting. **2018**, 10, 26859-26869	113
274	A review on fabricating tissue scaffolds using vat photopolymerization. **2018**, 74, 90-111	106
273	3D Hybrid Small Scale Devices. **2018**, 14, e1702497	4
272	Tissue Engineering Strategies for Osteochondral Repair. **2018**, 1059, 353-371	22
271	3D bioprinting adipose tissue for breast reconstruction. **2018**, 305-353	3
270	Repair of Damaged Articular Cartilage: Current Approaches and Future Directions. **2018**, 19,	108
269	How to build a lung: latest advances and emerging themes in lung bioengineering. **2018**, 52,	36
268	Rethinking Regenerative Medicine From a Transplant Perspective (and Vice Versa). **2019**, 103, 237-249	13
267	Current advances for bone regeneration based on tissue engineering strategies. **2019**, 13, 160-188	22
266	Bioinks for Three-Dimensional Printing in Regenerative Medicine. **2019**, 805-830	3
265	Three-Dimensional Tissue and Organ Printing in Regenerative Medicine. **2019**, 831-852	8
264	3D Bioprinting: Recent Trends and Challenges. **2019**, 99, 375-403	11
263	Double-Network Polyurethane-Gelatin Hydrogel with Tunable Modulus for High-Resolution 3D Bioprinting. **2019**, 11, 32746-32757	39
262	Potential Clinical Applications of Three-Dimensional Bioprinting. **2019**, 101-125	2
261	Functional Biomolecule Delivery Systems and Bioengineering in Cartilage Regeneration. **2019**, 20, 32-46	18
260	Surface Interactions between Boundary Layers of Poly(ethylene oxide)-Liposome Complexes: Lubrication, Bridging, and Selective Ligation **2019**, 35, 15469-15480	6
259	High density cell seeding affects the rheology and printability of collagen bioinks. **2019**, 11, 045016	46

258	Bioprinting functional tissues. **2019**, 95, 32-49	63
257	Effects of printing conditions on cell distribution within microspheres during inkjet-based bioprinting. **2019**, 9, 095055	12
256	Bioprinting for Liver Transplantation. **2019**, 6,	21
255	3D bioprinting for active drug delivery. **2019**, 61-72	5
254	Effects of culture conditions on the mechanical and biological properties of engineered cartilage constructed with collagen hybrid scaffold and human mesenchymal stem cells. **2019**, 30, 119	4
253	Models of the Gut for Analyzing the Impact of Food and Drugs. **2019**, 8, e1900968	20
252	Bioinks for jet-based bioprinting. **2019**, 16, e00060	13
251	Polymer-Based Additive Manufacturing. **2019**,	8
250	A novel Roll Porous Scaffold 3D bioprinting technology. **2019**, 13, e00042	2
249	Inkjet dispensing technologies: recent advances for novel drug discovery. **2019**, 14, 101-113	18
248	Recent Strategies in Extrusion-Based Three-Dimensional Cell Printing toward Organ Biofabrication. **2019**, 5, 1150-1169	56
247	Advances of injectable hydrogel-based scaffolds for cartilage regeneration. **2019**, 6, 129-140	71
246	3D Bioprinting: A Novel Avenue for Manufacturing Tissues and Organs. **2019**, 5, 777-794	74
245	3D Encapsulation Made Easy: A Coaxial-Flow Circuit for the Fabrication of Hydrogel Microfibers Patches. **2019**, 6,	4
244	4D and 5D Printing. **2019**, 143-163	3
243	Impact of Three-dimensional Printing in Urology: State of the Art and Future Perspectives. A Systematic Review by ESUT-YAUWP Group. **2019**, 76, 209-221	47
242	Effective bioprinting resolution in tissue model fabrication. **2019**, 19, 2019-2037	90
241	A critical review of current progress in 3D kidney biomanufacturing: advances, challenges, and recommendations. **2019**, 5,	18

240	3D Print Technology for Cell Culturing. **2019**, 83-114	0
239	Synchronized Dual Bioprinting of Bioinks and Biomaterial Inks as a Translational Strategy for Cartilage Tissue Engineering. **2019**, 6, 63-71	8
238	Poly (ethylene glycol) hydrogel scaffolds with multiscale porosity for culture of human adipose-derived stem cells. **2019**, 30, 895-918	5
237	Polymeric Materials for 3D Bioprinting. **2019**, 63-81	4
236	Extrusion bioprinting of soft materials: An emerging technique for biological model fabrication. **2019**, 6, 011310	82
235	Applied Bioengineering in Tissue Reconstruction, Replacement, and Regeneration. **2019**, 25, 259-290	9
234	3D printing of biomimetic multi-layered GelMA/nHA scaffold for osteochondral defect repair. **2019**, 171, 107708	68
233	Bioprinting. **2019**,	1
232	3D bioprinting via an in situ crosslinking technique towards engineering cartilage tissue. **2019**, 9, 19987	57
231	Biomechanical issues of tissue-engineered constructs for articular cartilage regeneration: in vitro and in vivo approaches. **2019**, 132, 53-80	9
230	Three-dimensional Bioprinting for Bone and Cartilage Restoration in Orthopaedic Surgery. **2019**, 27, e215-e226	57
229	Cell Bioprinting: The 3D-Bioplotter Case. **2019**, 12,	10
228	A new safranin based three-component photoinitiating system for high resolution and low shrinkage printed parts digital light processing.. **2019**, 9, 39709-39720	10
227	Five-Year Follow-Up of Distal Tibia Bone and Foot and Ankle Trauma Treated with a 3D-Printed Titanium Cage. **2019**, 2019, 7571013	4
226	Three-dimensional printing biotechnology for the regeneration of the tooth and tooth-supporting tissues. **2019**, 116, 452-468	24
225	Path planning method based on discontinuous grid partition algorithm of point cloud for in situ printing. **2019**, 25, 602-613	6
224	Phase-field-based modelling of the gelation process of biopolymer droplets in 3D bioprinting. **2019**, 63, 1187-1202	7
223	Generation of Organs Based on Decellularized Extracellular Matrix Scaffolds. **2019**, 57-72	3

222	Gelatin-polysaccharide composite scaffolds for 3D cell culture and tissue engineering: Towards natural therapeutics. **2019**, 4, 96-115	121
221	Using Intraoral Scanning Technology for Three-Dimensional Printing of Kennedy Class I Removable Partial Denture Metal Framework: A Clinical Report. **2019**, 28, e473-e476	25
220	Cartilage tissue engineering combining microspheroid building blocks and microneedle arrays. **2020**, 61, 229-243	16
219	Nanotechnology-based biomaterials for orthopaedic applications: Recent advances and future prospects. **2020**, 106, 110154	69
218	Engineering inkjet bioprinting processes toward translational therapies. **2020**, 117, 272-284	45
217	Biointegration of three-dimensional printed biomaterials and biomedical devices. **2020**, 433-482	2
216	Current applications of three-dimensional printing in urology. **2020**, 125, 17-27	23
215	Collagen Extraction from Various Waste Bovine Hide Sources. **2020**, 11, 5687-5698	22
214	A 3D-Printed Hybrid Nasal Cartilage with Functional Electronic Olfaction. **2020**, 7, 1901878	38
213	Printability study of metal ion crosslinked PEG-catechol based inks. **2020**, 12, 035009	9
212	Investigation of 3D-Printed Polycaprolactone-/Polyvinylpyrrolidone-Based Constructs. **2020**, 1947603519897302	4
211	A high-throughput approach to compare the biocompatibility of candidate bioink formulations. **2020**, 17, e00068	6
210	Introduction to the state-of-the-art 3D bioprinting methods, design, and applications in orthopedics. **2020**, 18, e00070	29
209	Development of 3D bioprinting: From printing methods to biomedical applications. **2020**, 15, 529-557	102
208	Opportunities and challenges of translational 3D bioprinting. **2020**, 4, 370-380	144
207	A review of 3D bio-printing for bone and skin tissue engineering: a commercial approach. **2020**, 55, 3729-3749	40
206	Human articular cartilage repair: Sources and detection of cytotoxicity and genotoxicity in photo-crosslinkable hydrogel bioscaffolds. **2020**, 9, 302-315	24
205	Generic method of printing window adjustment for extrusion-based 3D-bioprinting to maintain high viability of mesenchymal stem cells in an alginate-gelatin hydrogel. **2020**, 20, e00094	18

204	Advances on Bone Substitutes through 3D Bioprinting. **2020**, 21,	42
203	3D bioprinting for orthopaedic applications: Current advances, challenges and regulatory considerations. **2020**, 20, None	10
202	Guiding Lights: Tissue Bioprinting Using Photoactivated Materials. **2020**, 120, 10950-11027	55
201	Computer aided designing and finite element analysis for development of porous 3D tissue scaffold - a review. **2020**, 33, 174	1
200	Crosslinking Strategies for 3D Bioprinting of Polymeric Hydrogels. **2020**, 16, e2002931	67
199	3D printing and bioprinting using multiphoton lithography. **2020**, 20, e00090	6
198	Aspiration-assisted bioprinting of the osteochondral interface. **2020**, 10, 13148	14
197	The Current Trends of Biosensors in Tissue Engineering. **2020**, 10,	27
196	Synthetic ECM: Bioactive Synthetic Hydrogels for 3D Tissue Engineering. **2020**, 31, 2253-2271	25
195	Hydrogel-Based 3D Bioprinting for Bone and Cartilage Tissue Engineering. **2020**, 15, e2000095	40
194	Photocrosslinkable nanocomposite ink for printing strong, biodegradable and bioactive bone graft. **2020**, 263, 120378	31
193	Drop impact printing. **2020**, 11, 4327	24
192	Synthetic Polymers for Organ 3D Printing. **2020**, 12,	25
191	Inkjet Bioprinting of Biomaterials. **2020**, 120, 10793-10833	103
190	Three-Dimensional Technology Applications in Maxillofacial Reconstructive Surgery: Current Surgical Implications. **2020**, 10,	4
189	A Versatile Open-Source Printhead for Low-Cost 3D Microextrusion-Based Bioprinting. **2020**, 12,	5
188	Tissue-Specific Bioink from Xenogeneic Sources for 3D Bioprinting of Tissue Constructs. **2020**,	0
187	MicroRNA-191 regulates differentiation and migration of mesenchymal stem cells and their paracrine effect on angiogenesis. **2020**, 42, 1777-1788	1

186	Extrusion and Microfluidic-based Bioprinting to Fabricate Biomimetic Tissues and Organs. **2020**, 5, 1901044	57
185	Regenerative medicine, organ bioengineering and transplantation. **2020**, 107, 793-800	41
184	Spatiotemporally Controlled Photoresponsive Hydrogels: Design and Predictive Modeling from Processing through Application. **2020**, 30, 2000639	21
183	Thermal Bioprinting Causes Ample Alterations of Expression of LUCAT1, IL6, CCL26, and NRN1L Genes and Massive Phosphorylation of Critical Oncogenic Drug Resistance Pathways in Breast Cancer Cells. **2020**, 8, 82	12
182	Novel Strategies in Artificial Organ Development: What Is the Future of Medicine?. **2020**, 11,	8
181	A Preliminary Evaluation of the Pro-Chondrogenic Potential of 3D-Bioprinted Poly(ester Urea) Scaffolds. **2020**, 12,	4
180	Tensile Fatigue of Poly(Vinyl Alcohol) Hydrogels with Bio-Friendly Toughening Agents. **2020**, 305, 1900784	10
179	Chondrogenic differentiation of mesenchymal stem/stromal cells on 3D porous poly (Ɛ-caprolactone) scaffolds: Effects of material alkaline treatment and chondroitin sulfate supplementation. **2020**, 129, 756-764	12
178	A multilayered valve leaflet promotes cell-laden collagen type I production and aortic valve hemodynamics. **2020**, 240, 119838	11
177	3D printing of hydrogels: Rational design strategies and emerging biomedical applications. **2020**, 140, 100543	241
176	From Shape to Function: The Next Step in Bioprinting. **2020**, 32, e1906423	145
175	Bioengineering strategies for nephrologists: kidney was not built in a day. **2020**, 20, 467-480	13
174	Combining Innovative Bioink and Low Cell Density for the Production of 3D-Bioprinted Cartilage Substitutes: A Pilot Study. **2020**, 2020, 2487072	12
173	Advances in Hybrid Fabrication toward Hierarchical Tissue Constructs. **2020**, 7, 1902953	52
172	Polymer scaffold fabrication. **2020**, 295-315	1
171	Engineering cartilage and other structural tissues: principals of bone and cartilage reconstruction. **2020**, 979-987	
170	Three-dimensional bioprinting for tissue engineering. **2020**, 1391-1415	2
169	Bio-Fabrication: Convergence of 3D Bioprinting and Nano-Biomaterials in Tissue Engineering and Regenerative Medicine. **2020**, 8, 326	30

168	One-Step Photoactivation of a Dual-Functionalized Bioink as Cell Carrier and Cartilage-Binding Glue for Chondral Regeneration. **2020**, 9, e1901792	25
167	Differences in the Structure and Protein Expression of Femoral Nerve Branches in Rats. **2020**, 14, 16	
166	Three-Dimensional Bioprinting of Articular Cartilage: A Systematic Review. **2021**, 12, 76-92	26
165	3D inkjet printing of biomaterials: Principles and applications. **2021**, 4, e10143	1
164	Effects of Processing Parameters of 3D Bioprinting on the Cellular Activity of Bioinks. **2021**, 21, e2000179	17
163	Three dimensional bioprinting technology: Applications in pharmaceutical and biomedical area. **2021**, 197, 111396	19
162	3D printable Sodium alginate-Matrigel (SA-MA) hydrogel facilitated ectomesenchymal stem cells (EMSCs) neuron differentiation. **2021**, 35, 709-719	9
161	Nontraditional systems in aging research: an update. **2021**, 78, 1275-1304	3
160	3D printing in pharmaceuticals: An emerging technology full of challenges. **2021**, 79, 107-118	4
159	Lightweight 3D bioprinting with point by point photocuring. **2021**, 6, 1402-1412	7
158	Biocompatible heterogeneous bone incorporated with polymeric biocomposites for human bone repair by 3D printing technology. **2021**, 138, 50114	10
157	An Overview on Materials and Techniques in 3D Bioprinting Toward Biomedical Application. **2021**, 2, 1-18	36
156	Improving printability of a thermoresponsive hydrogel biomaterial ink by nanoclay addition. **2021**, 56, 691-705	11
155	iPSC bioprinting for musculoskeletal tissue. **2021**, 237-270	1
154	Hydrogel as Bio-Ink for Organ Regeneration. **2021**, 165-179	
153	3D Bioprinting in Medicine. **2021**, 001-005	2
152	Modern Porous Polymer Implants: Synthesis, Properties, and Application. **2021**, 63, 29-46	1
151	Strategies of 3D bioprinting and parameters that determine cell interaction with the scaffold - A review. **2021**, 81-95	

150	Design of a flexible neck orthosis on Fused Deposition Modeling printer for rehabilitation on regular usage. **2021**, 179, 63-71	2
149	3D Bioprinting at the Frontier of Regenerative Medicine, Pharmaceutical, and Food Industries.. **2020**, 2, 607648	11
148	How the transplant landscape is changing in the regenerative medicine era. **2021**, 273-284	1
147	Chapter 13:3D-bioprinting for Engineering Complex Tissues and Vascularization. **2021**, 339-359	
146	Extrusion-Based Additive Manufacturing Techniques for Biomedical Applications. **2021**, 1101-1111	
145	3D Bioprinting in Oral and Maxillofacial Surgery. **2021**, 61-79	
144	The acoustic droplet printing of functional tumor microenvironments. **2021**, 21, 1604-1612	12
143	Unconventional acoustic approaches for localized and designed micromanipulation. **2021**, 21, 2837-2856	10
142	3D printing equipment in medicine. **2021**, 223-261	
141	3D Printing in Fiber-Device Technology. **2021**, 3, 59-75	15
140	Cell spheroids as a versatile research platform: formation mechanisms, high throughput production, characterization and applications. **2021**,	9
139	Bioprinting of human nasoseptal chondrocytes-laden collagen hydrogel for cartilage tissue engineering. **2021**, 35, e21191	6
138	Three-Dimensional Printing of Hydroxyapatite Composites for Biomedical Application. **2021**, 11, 353	11
137	3D Bioprinted Cardiac Tissues and Devices for Tissue Maturation. **2021**, 1-14	3
136	3D Bioprinting of Human Tissues: Biofabrication, Bioinks, and Bioreactors. **2021**, 22,	13
135	Semi-solid extrusion 3D printing in drug delivery and biomedicine: Personalised solutions for healthcare challenges. **2021**, 332, 367-389	54
134	Artificial Tumor Microenvironments in Neuroblastoma. **2021**, 13,	3
133	Role of in situ added cellulose nanocrystals as rheological modulator of novel waterborne polyurethane urea for 3D-printing technology. **2021**, 28, 4729-4744	3

132	The Value of Three-Dimensional Printing Spine Model in Severe Spine Deformity Correction Surgery. **2021**, 21925682211008830		2
131	Application of 3D Bioprinters for Dental Pulp Regeneration and Tissue Engineering (Porous architecture). 1		4
130	3D Printing of Cellulose Nanocrystal-Loaded Hydrogels through Rapid Fixation by Photopolymerization. **2021**, 37, 6451-6458		6
129	Biomimetic Design of 3D Printed Tissue-Engineered Bone Constructs. **2021**, 17, 223-240		1
128	3D printing in biomedical engineering: Processes, materials, and applications. **2021**, 8, 021322		9
127	Preparation of silk fibroin/hyaluronic acid hydrogels with enhanced mechanical performance by a combination of physical and enzymatic crosslinking. **2021**, 32, 1635-1653		5
126	Recent Advances on Bioprinted Gelatin Methacrylate-Based Hydrogels for Tissue Repair. *Tissue Engineering - Part A*, **2021**, 27, 679-702	3.9	17
125	Recent Advances in 3D Printing for Parenteral Applications. **2021**, 23, 87		2
124	Tissue-Specific Decellularized Extracellular Matrix Bioinks for Musculoskeletal Tissue Regeneration and Modeling Using 3D Bioprinting Technology. **2021**, 22,		4
123	Effect of Silk Fibroin Concentration on the Properties of Polyethylene Glycol Dimethacrylates for Digital Light Processing Printing. **2021**, 23, 2100487		2
122	A review on biomaterials for ovarian tissue engineering. **2021**, 135, 48-63		5
121	Collagen: From Waste to Gold.		0
120	A direct slicing technique for the 3D printing of implicitly represented medical models. **2021**, 135, 104534		1
119	3D bioprinting of molecularly engineered PEG-based hydrogels utilizing gelatin fragments. **2021**, 13,		3
118	Closed-Loop Controlled Photopolymerization of Hydrogels. **2021**, 13, 40365-40378		0
117	Biofabrication Strategies for Musculoskeletal Disorders: Evolution towards Clinical Applications. **2021**, 8,		1
116	The influence of chondrocyte source on the manufacturing reproducibility of human tissue engineered cartilage. **2021**, 131, 276-285		
115	The Use of Collagen with High Concentration in Cartilage Tissue Engineering by Means of 3D-Bioprinting. **2021**, 15, 493-502		2

114	Converging 2D Nanomaterials and 3D Bioprinting Technology: State-of-the-Art, Challenges, and Potential Outlook in Biomedical Applications. **2021**, 10, e2101439	2
113	Safety and Efficacy of Kartigen in Treating Cartilage Defects: A Randomized, Controlled, Phase I Trial. **2021**, 13,	2
112	The promising rise of bioprinting in revolutionalizing medical science: Advances and possibilities. **2021**, 18, 133-145	5
111	Chapter 24:3D-printed Soft Hydrogels for Cell Encapsulation. **2021**, 594-625	
110	3D Printing of Hydrogel Constructs Toward Targeted Development in Tissue Engineering. **2021**, 79-127	
109	Biofunctional Inks for 3D Printing in Skin Tissue Engineering. **2021**, 229-259	
108	Bioinks and Their Applications in Tissue Engineering. **2019**, 187-218	4
107	Biomaterials and Microfluidics for Drug Discovery and Development. **2020**, 1230, 121-135	5
106	3D Cell Culture Systems for the Development of Neural Interfaces. **2020**, 201-236	1
105	Three-Dimensional Bioprinting in Regenerative Medicine. **2015**, 109-122	1
104	Fabrication and Printing of Multi-material Hydrogels. **2016**, 1-34	2
103	Photopolymerizable Materials for Cell Encapsulation. **2017**, 1-43	2
102	Additive Manufacturing for Tissue Engineering. **2018**, 1-52	1
101	Inkjet Printing for Biofabrication. **2018**, 1-19	2
100	Photo-curing 3D printing technique and its challenges. **2020**, 5, 110-115	205
99	Preliminary engineering for in situ in vivo bioprinting: a novel micro bioprinting platform for in situ in vivo bioprinting at a gastric wound site. **2020**, 12, 045020	19
98	Printability study of metal ion crosslinked PEG-catechol based inks.	2
97	Emergence of Bioprinting in Tissue Engineering: A Mini Review. **2016**, 1,	2

96	Recent cell printing systems for tissue engineering. **2017**, 3, 004	31
95	3D printing of hydrogel composite systems: Recent advances in technology for tissue engineering. **2018**, 4, 126	100
94	Analysis of the knowledge landscape of three-dimensional bioprinting in Latin America. **2019**, 5, 240	3
93	Bio-ink Materials for 3D Bio-printing. **2016**, 3, 49-59	5
92	PROGRESS IN THE DEVELOPMENT OF BIOMEDICAL POLYMER MATERIALS FABRICATED BY 3-DIMENSIONAL PRINTING TECHNOLOGY. **2013**, 013, 722-732	4
91	Applications of regenerative medicine in organ transplantation. **2015**, 7, 188-94	22
90	Three-dimensional cell culture systems as an platform for cancer and stem cell modeling. **2019**, 11, 1065-1083	133
89	Three-dimensional printing with biomaterials in craniofacial and dental tissue engineering. **2019**, 7, e7271	10
88	3D Bioprinted Implants for Cartilage Repair in Intervertebral Discs and Knee Menisci. **2021**, 9, 754113	3
87	Applications of 3D Bioprinting in Tissue Engineering and Regenerative Medicine. **2021**, 10,	5
86	Stereolithography 3D printing technology in pharmaceuticals: a review. **2021**, 1-11	2
85	Translation and Applications of Biofabrication. **2016**, 1-34	1
84	The Present and Future of the Cancer Microenvironment Bioprinting. **2017**, 15, 103-110	
83	Cartilage Tissue Engineering: Role of Mesenchymal Stem Cells, Growth Factors, and Scaffolds. **2019**, 249-262	
82	Chapter 6:Polymers in Biofabrication and 3D Tissue Modelling. **2019**, 119-147	
81	3D Bioprinting Hardware. **2019**, 161-186	1
80	Smart and Biomimetic 3D and 4D Printed Composite Hydrogels: Opportunities for Different Biomedical Applications. **2021**, 9,	10
79	Non-Surgical Management of Pre-Arthritic Dysplastic Hip Pain. **2020**, 111-128	

78	Visible Light-Curable Hydrogel Systems for Tissue Engineering and Drug Delivery. **2020**, 1249, 85-93	2
77	Bioinks for 3D printing of artificial extracellular matrices. **2020**, 1-37	1
76	□Boyutlu H□re K□t□□Sistemlerine G□cel Yakla□lar.	
75	3D Bioprinting Photo-Crosslinkable Hydrogels for Bone and Cartilage Repair. **2021**, 7, 367	6
74	3D Bioprinting Photo-Crosslinkable Hydrogels for Bone and Cartilage Repair. **2021**, 7, 367	16
73	Instructive cartilage regeneration modalities with advanced therapeutic implantations under abnormal conditions.. **2022**, 11, 317-338	13
72	Bioprinting of biomimetic self-organised cartilage with a supporting joint fixation device. **2021**, 14,	0
71	Large Scale Tissues Bioprinting. **2022**, 257-280	
70	Representative 3D Bioprinting Approaches. **2022**, 11-45	
69	Additive manufacturing technology of polymeric materials for customized products: recent developments and future prospective.. **2021**, 11, 36398-36438	6
68	Chitosan-based inks for 3D printing and bioprinting. **2022**, 24, 62-101	8
67	Review of extrusion-based multi-material bioprinting processes. **2022**, 25, e00189	4
66	Advanced 3D Bioprinting Technologies. **2021**, 15, 616-627	
65	New Insights into Cartilage Tissue Engineering: Improvement of Tissue-Scaffold Integration to Enhance Cartilage Regeneration.. **2022**, 2022, 7638245	3
64	Preparation and Characterisation of Cellulose Nanocrystal/Alginate/Polyethylene Glycol Diacrylate (CNC/Alg/PEGDA) Hydrogel Using Double Network Crosslinking Technique for Bioprinting Application. **2022**, 12, 771	1
63	(Bio)manufactured Solutions for Treatment of Bone Defects with an Emphasis on US-FDA Regulatory Science Perspective. 2100073	1
62	A review on 3D printing in tissue engineering applications. **2022**,	1
61	3D bioprinting of hydrogel/ceramic composites with hierarchical porosity. **2022**, 57, 3662-3677	1

60	3D Bioprinting Technology One Step Closer Towards Cardiac Tissue Regeneration. **2022**, 8,	1
59	Advances in 3D printing of composite scaffolds for the repairment of bone tissue associated defects.. **2022**, e3234	2
58	A review on 3D printing functional brain model.. **2022**, 16, 011501	2
57	Articulation inspired by nature: a review of biomimetic and biologically active 3D printed scaffolds for cartilage tissue engineering.. **2022**,	3
56	3D Printing of Cartilage and Subchondral Bone. **2022**, 371-395	
55	Computer vision-aided bioprinting for bone research.. **2022**, 10, 21	0
54	Recent Advances in Additive Manufacturing and 3D Bioprinting for Organs-On-A-Chip and Microphysiological Systems.. **2022**, 10, 837087	4
53	The 3D Bioprinted Scaffolds for Wound Healing.. **2022**, 14,	4
52	Advances in 3D Bioprinting. **2022**, 1, 100011	0
51	Advances in microfabrication technologies in tissue engineering and regenerative medicine.. **2022**,	2
50	Hybprinting for musculoskeletal tissue engineering.. **2022**, 25, 104229	0
49	A review of the structural and physical properties that govern cell interactions with structured biomaterials enabled by additive manufacturing. **2022**, 26, e00201	1
48	3D bioprinting of photo-crosslinkable silk methacrylate (SilMA)-polyethylene glycol diacrylate (PEGDA) bioink for cartilage tissue engineering.. **2021**,	2
47	Functionalized hydrogels for articular cartilage tissue engineering. **2022**,	1
46	Image_1.pdf. **2020**,	
45	Table_1.pdf. **2020**,	
44	Table_1.DOCX. **2020**,	
43	Bioprinting for skeletal tissue regeneration: from current trends to future promises. **2022**, 271-301	

42	Regeneratively speaking: Reflections on organ transplantation and beta cell replacement in the regenerative medicine era. **2022**, 199-209	
41	Application of three-dimensional bioprinting technology in orthopedics. **2022**, 8, 8	
40	Shedding light on 3D printing: Printing photo-crosslinkable constructs for tissue engineering. **2022**, 121566	5
39	Valuable effect of Manuka Honey in increasing the printability and chondrogenic potential of a naturally derived bioink. **2022**, 100287	1
38	Extrusion 3D bioprinting of functional self-supporting neural constructs using a photoclickable gelatin bioink.. **2022**,	0
37	Nanotechnology: A Toolkit for Cell Behavior. **2015**, 3-32	
36	Emerging tissue engineering strategies for the corneal regeneration.. **2022**,	0
35	3D Bioprinting of Tissues and Organs: A New Paradigm in Regenerative Medicine and Biomedical Engineering. **2022**, 215-237	
34	3D bioprinting: Printing the future and recent advances. **2022**, e00211	0
33	Influence of Mechanical Properties of Biomaterials on the Reconstruction of Biomedical Parts via Additive Manufacturing Techniques: An Overview.	0
32	Industrial Applications of Inkjet Printing in Life Sciences. **2022**, 1461-1499	
31	3D bioprinting for the repair of articular cartilage and Osteochondral tissue. **2022**, e00239	2
30	Auricular reconstruction via 3D bioprinting strategies: An update. **2022**, 12, 580-588	
29	The application of 3D bioprinting in urological diseases. **2022**, 16, 100388	0
28	Biomaterial composition and stiffness as decisive properties of 3D bioprinted constructs for type II collagen stimulation. **2022**,	0
27	Systematic review on the application of 3D-bioprinting technology in orthoregeneration: current achievements and open challenges. **2022**, 9,	0
26	3D Printing for Orthopedics. **2022**, 243-263	0
25	Tissues and organ printing: An evolution of technology and materials. 095441192211250	1

24	Three-dimensional (3D) printing of hydroxyapatite-based scaffolds: A review. **2022**, 28, e00244	0
23	Inkjetting of Biomaterials. **2022**, 266-284	0
22	Biofabrication of the osteochondral unit and its applications: Current and future directions for 3D bioprinting. **2022**, 13, 204173142211334	0
21	3D bioprinting of articular cartilage: Recent advances and perspectives. **2022**, 28, e00253	2
20	3D Bioprinting of Smart Oxygen-Releasing Cartilage Scaffolds. **2022**, 13, 252	0
19	3D Bioprinting Using Hydrogels: Cell Inks and Tissue Engineering Applications. **2022**, 14, 2596	1
18	Laser-Induced Forward Transfer on Regenerative Medicine Applications.	0
17	A review on cell damage, viability, and functionality during 3D bioprinting. **2022**, 9,	1
16	Investigation of Cell Aggregation on the Printing Performance in Inkjet-Based Bioprinting of Cell-Laden Bioink.	1
15	Effects of biopolymer functionalization and nanohydroxyapatite heat treatment on the tensile and thermomechanical properties of Bone-Inspired 3D printable nanocomposite biomaterials. **2023**, 225, 111587	0
14	3D printing method for bone tissue engineering scaffold. **2023**, 17, 100205	0
13	3D printing families: laser, powder, and nozzle-based techniques. **2023**, 29-57	0
12	(Bio)fabrication of microfluidic devices and organs-on-a-chip. **2023**, 273-336	0
11	Bioprinting of cartilage. **2023**, 69-94	0
10	Drug-releasing nano-bioimplants: from basics to current progress. **2023**, 273-295	0
9	3D bioprinting: An innovative technique for biofabrication applied to regenerative medicine and tissue engineering. **2023**, 195-232	0
8	Introduction. **2023**, 1-11	0
7	3D printing with biomaterials: A prospective view for biomedical applications. **2023**, 81-103	0

6	Ingenier□ de tejidos en poblaci□ pedi□rica: una esperanza para el tratamiento de enfermedades valvulares mitrales cong□itas. **2023**,	0
5	Keeping It Organized: Multicompartment Constructs to Mimic Tissue Heterogeneity.	0
4	Recent advances in biofabrication strategies based on bioprinting for vascularized tissue repair and regeneration. **2023**, 229, 111885	0
3	Recent Advances in 3DPrinting in the Design and Application of Biopolymer-Based Scaffolds. **2023**, 489-559	0
2	3D printing-based full-scale human brain for diverse applications. **2023**, 1,	0
1	Key aspects for conception and construction of co-culture models of tumor-stroma interactions. 11,	0