Subha N Rath

List of Publications by Year
in descending order

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50 papers	1,651 citations	257450 24 h-index	302126 39 g-index
50 all docs	50 docs citations	50 times ranked	2533 citing authors

#	Article	IF	Citations
1	In vitro and in vivo Biocompatibility of Alginate Dialdehyde/Gelatin Hydrogels with and without Nanoscaled Bioactive Glass for Bone Tissue Engineering Applications. Materials, 2014, 7, 1957-1974.	2.9	107
2	3D printed microfluidic devices: a review focused on four fundamental manufacturing approaches and implications on the field of healthcare. Bio-Design and Manufacturing, 2021, 4, 311-343.	7.7	96
3	Bioactive Copper-Doped Glass Scaffolds Can Stimulate Endothelial Cells in Co-Culture in Combination with Mesenchymal Stem Cells. PLoS ONE, 2014, 9, e113319.	2.5	87
4	Osteoinduction and survival of osteoblasts and boneâ€marrow stromal cells in 3<scp>D</scp> biphasic calcium phosphate scaffolds under static and dynamic culture conditions. Journal of Cellular and Molecular Medicine, 2012, 16, 2350-2361.	3.6	84
5	Optimization of extrusion based ceramic 3D printing process for complex bony designs. Materials and Design, 2019, 162, 263-270.	7.0	84
6	Soluble eggshell membrane: A natural protein to improve the properties of biomaterials used for tissue engineering applications. Materials Science and Engineering C, 2016, 67, 807-821.	7.3	83
7	Valorization of discarded Marine Eel fish skin for collagen extraction as a 3D printable blue biomaterial for tissue engineering. Journal of Cleaner Production, 2019, 230, 412-419.	9.3	76
8	On-chip anticancer drug screening â€“ Recent progress in microfluidic platforms to address challenges in chemotherapy. Biosensors and Bioelectronics, 2019, 137, 236-254.	10.1	68
9	Oxidized Alginate-Gelatin Hydrogel: A Favorable Matrix for Growth and Osteogenic Differentiation of Adipose-Derived Stem Cells in 3D. ACS Biomaterials Science and Engineering, 2017, 3, 1730-1737.	5.2	62
10	Induction of bone formation in biphasic calcium phosphate scaffolds by bone morphogenetic protein-2 and primary osteoblasts. Journal of Tissue Engineering and Regenerative Medicine, 2014, 8, 176-185.	2.7	58
11	3D printable SiO₂ nanoparticle ink for patient specific bone regeneration. RSC Advances, 2019, 9, 23832-23842.	3.6	54
12	Endothelial progenitor cells are integrated in newly formed capillaries and alter adjacent fibrovascular tissue after subcutaneous implantation in a fibrin matrix. Journal of Cellular and Molecular Medicine, 2011, 15, 2452-2461.	3.6	41
13	Sustained release and osteogenic potential of heparan sulfate-doped fibrin glue scaffolds within a rat cranial model. Journal of Molecular Histology, 2007, 38, 425-433.	2.2	40
14	In vitro evaluation of 45S5 BioglassÂ®â€derived glassâ€ceramic scaffolds coated with carbon nanotubes. Journal of Biomedical Materials Research - Part A, 2011, 99A, 435-444.	4.0	40
15	Adipose- and bone marrow-derived mesenchymal stem cells display different osteogenic differentiation patterns in 3D bioactive glass-based scaffolds. Journal of Tissue Engineering and Regenerative Medicine, 2016, 10, E497-E509.	2.7	40
16	Hyaluronan-based heparin-incorporated hydrogels for generation of axially vascularized bioartificial bone tissues: inÂvitro and inÂvivo evaluation in a PLDLLAâ€“TCPâ€“PCL-composite system. Journal of Materials Science: Materials in Medicine, 2011, 22, 1279-1291.	3.6	37
17	Development of a pre-vascularized 3D scaffold-hydrogel composite graft using an arterio-venous loop for tissue engineering applications. Journal of Biomaterials Applications, 2012, 27, 277-289.	2.4	37
18	Electrospun Fibers for Recruitment and Differentiation of Stem Cells in Regenerative Medicine. Biotechnology Journal, 2017, 12, 1700263.	3.5	35

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19	Enhanced osteodifferentiation of MSC spheroids on patterned electrospun fiber mats - An advanced 3D double strategy for bone tissue regeneration. Materials Science and Engineering C, 2019, 94, 703-712.	7.3	35
20	Indenone derivatives as inhibitor of human DNA dealkylation repair enzyme AlkBH3. Bioorganic and Medicinal Chemistry, 2018, 26, 4100-4112.	3.0	33
21	T17b murine embryonal endothelial progenitor cells can be induced towards both proliferation and differentiation in a fibrin matrix. Journal of Cellular and Molecular Medicine, 2009, 13, 926-935.	3.6	29
22	Electrospun nanofibres to mimic natural hierarchical structure of tissues: application in musculoskeletal regeneration. Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, e604-e619.	2.7	29
23	Mechanochemically synthesized phase stable and biocompatible Î²-tricalcium phosphate from avian eggshell for the development of tissue ingrowth system. Ceramics International, 2019, 45, 12910-12919.	4.8	29
24	Investigating the effects of preinduction on human adipose-derived precursor cells in an athymic rat model. Differentiation, 2006, 74, 519-529.	1.9	26
25	Effect of patterned electrospun hierarchical structures on alignment and differentiation of mesenchymal stem cells: Biomimicking bone. Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, e2073-e2084.	2.7	24
26	Recent advances in threeâ€dimensional bioprinting of stem cells. Journal of Tissue Engineering and Regenerative Medicine, 2019, 13, 908-924.	2.7	23
27	Indirect co-culture of lung carcinoma cells with hyperthermia-treated mesenchymal stem cells influences tumor spheroid growth in a collagen-based 3-dimensional microfluidic model. Cytotherapy, 2021, 23, 25-36.	0.7	23
28	Synthesis and Optimization of PCL-Bioactive Glass Composite Scaffold for Bone Tissue Engineering. Materials Today: Proceedings, 2019, 15, 294-299.	1.8	20
29	Human Umbilical Cord-Derived Mesenchymal Stem Cells Promote Corneal Epithelial Repair In Vitro. Cells, 2021, 10, 1254.	4.1	20
30	Antagonistic interaction between TTA-A2 and paclitaxel for anti-cancer effects by complex formation with T-type calcium channel. Journal of Biomolecular Structure and Dynamics, 2022, 40, 2395-2406.	3.5	19
31	Selective Cytotoxicity of a Novel Trpâ€Rich Peptide against Lung Tumor Spheroids Encapsulated inside a 3D Microfluidic Device. Advanced Biology, 2020, 4, e1900285.	3.0	19
32	Comparison of chondrogenesis in static and dynamic environments using a SFF designed and fabricated PCL-PEO scaffold. Virtual and Physical Prototyping, 2008, 3, 209-219.	10.4	18
33	Biosynthesis and characterization of nano magnetic hydroxyapatite (nMHAp): An accelerated approach using simulated body fluid for biomedical applications. Ceramics International, 2020, 46, 27866-27876.	4.8	17
34	T-type calcium channel antagonist, TTA-A2 exhibits anti-cancer properties in 3D spheroids of A549, a lung adenocarcinoma cell line. Life Sciences, 2020, 260, 118291.	4.3	15
35	Isogenic-induced endothelial cells enhance osteogenic differentiation of mesenchymal stem cells on silk fibroin scaffold. Regenerative Medicine, 2019, 14, 647-661.	1.7	13
36	Electrospun freestanding hydrophobic fabric as a potential polymer semi-permeable membrane for islet encapsulation. Materials Science and Engineering C, 2021, 118, 111409.	7.3	13

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37	Facile Route for 3D Printing of Transparent PETg-Based Hybrid Biomicrofluidic Devices Promoting Cell Adhesion. ACS Biomaterials Science and Engineering, 2021, 7, 3947-3963.	5.2	13
38	Mechanically tunable photo-cross-linkable bioinks for osteogenic differentiation of MSCs in 3D bioprinted constructs. Materials Science and Engineering C, 2021, 131, 112478.	7.3	13
39	Factors Influencing Successful Outcome in the Arteriovenous Loop Model: A Retrospective Study of 612 Loop Operations. Journal of Reconstructive Microsurgery, 2011, 27, 011-018.	1.8	12
40	Regional Differentiation of Adipose-Derived Stem Cells Proves the Role of Constant Electric Potential in Enhancing Bone Healing. Journal of Medical and Biological Engineering, 2018, 38, 804-815.	1.8	12
41	Modulation of 3D Printed Calcium-Deficient Apatite Constructs with Varying Mn Concentrations for Osteochondral Regeneration via Endochondral Differentiation. ACS Applied Materials & Interfaces, 2022, 14, 23245-23259.	8.0	11
42	Biocompatibility-on-a-chip: Characterization and evaluation of decellularized tendon extracellular matrix (tdECM) hydrogel for 3D stem cell culture in a microfluidic device. International Journal of Biological Macromolecules, 2022, 213, 768-779.	7.5	10
43	Recent approaches in clinical applications of 3D printing in neonates and pediatrics. European Journal of Pediatrics, 2021, 180, 323-332.	2.7	9
44	Beneficial effects of secretome derived from mesenchymal stem cells with stigmasterol to negate IL-1Î²-induced inflammation in-vitro using rat chondrocytesâ€"OA management. Inflammopharmacology, 2021, 29, 1701-1717.	3.9	9
45	3D bioprinting of mesenchymal stem cells and endothelial cells in an alginate-gelatin-based bioink. Journal of 3D Printing in Medicine, 2021, 5, 23-36.	2.0	8
46	A novel design of microfluidic platform for metronomic combinatorial chemotherapy drug screening based on 3D tumor spheroid model. Biomedical Microdevices, 2021, 23, 50.	2.8	8
47	3D printers for surgical practice. , 2017, , 139-154.		5
48	Adjuvant role of a T-type calcium channel blocker, TTA-A2, in lung cancer treatment with paclitaxel. , 2021, 4, 996-1007.		3
49	Perfusion-based 3D tumor-on-chip devices for anticancer drug testing. , 2020, , 379-398.		2
50	Microfluidic Biosensor-Based Devices for Rapid Diagnosis and Effective Anti-cancer Therapeutic Monitoring for Breast Cancer Metastasis. Advances in Experimental Medicine and Biology, 2022, , 319-339.	1.6	2