Emmanuel C Opara

List of Publications by Year in descending order

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55 papers 1,540 citations

331538 21 h-index 315616 38 g-index

55 all docs 55 docs citations

55 times ranked 1886 citing authors

#	Article	IF	CITATIONS
1	Effect of Alginate Microbead Encapsulation of Placental Mesenchymal Stem Cells on Their Immunomodulatory Function. Annals of Biomedical Engineering, 2022, 50, 291-302.	1.3	2
2	Perspectives and Challenges on the Potential Use of Exosomes in Bioartificial Pancreas Engineering. Annals of Biomedical Engineering, 2022, 50, $1177-1186$.	1.3	7
3	Effect of alginate matrix engineered to mimic the pancreatic microenvironment on encapsulated islet function. Biotechnology and Bioengineering, 2021, 118, 1177-1185.	1.7	24
4	Comprehensive characterization of the human pancreatic proteome for bioengineering applications. Biomaterials, 2021, 270, 120613.	5.7	13
5	Encapsulation Strategies for Pancreatic Islet Transplantation without Immune Suppression. Current Stem Cell Reports, 2021, 7, 49-71.	0.7	2
6	Controlled Delivery of Slit3 Proteins from Alginate Microbeads Inhibits InÂVitro Angiogenesis. Journal of Surgical Research, 2021, 264, 90-98.	0.8	1
7	Islet cell encapsulation – Application in diabetes treatment. Experimental Biology and Medicine, 2021, 246, 2570-2578.	1.1	10
8	Encapsulation of Mesenchymal Stem Cells in 3D Ovarian Cell Constructs Promotes Stable and Long-Term Hormone Secretion with Improved Physiological Outcomes in a Syngeneic Rat Model. Annals of Biomedical Engineering, 2020, 48, 1058-1070.	1.3	22
9	Design of an Adhesive Film-Based Microfluidic Device for Alginate Hydrogel-Based Cell Encapsulation. Annals of Biomedical Engineering, 2020, 48, 1103-1111.	1.3	16
10	Bioengineering and Enabling Technologies: ABME Special Issue Editorial. Annals of Biomedical Engineering, 2020, 48, 1445-1450.	1.3	1
11	Development of a Novel Oral Delivery Vehicle for Probiotics. Current Pharmaceutical Design, 2020, 26, 3134-3140.	0.9	10
12	Cell-Based and Pharmacologic Hormone Therapy Maintain Diastolic Function After Ovariectomy in Hypertensive Rats. Innovation in Aging, 2020, 4, 131-131.	0.0	0
13	Cellâ€based hormone therapy prevents diastolic dysfunction after estrogen loss in the Spontaneously Hypertensive Rat (SHR). FASEB Journal, 2020, 34, 1-1.	0.2	0
14	Detergent-Free Decellularization of the Human Pancreas for Soluble Extracellular Matrix (ECM) Production. Journal of Visualized Experiments, 2020, , .	0.2	7
15	Chemical Modification of Alginate for Controlled Oral Drug Delivery. Journal of Agricultural and Food Chemistry, 2019, 67, 10481-10488.	2.4	52
16	Selective Osmotic Shock for Islet Isolation in the Cadaveric Canine Pancreas. Cell Transplantation, 2018, 27, 542-550.	1.2	3
17	Combinations of Activin A or Nicotinamide with the Pancreatic Transcription Factor PDX1 Support Differentiation of Human Amnion Epithelial Cells Toward a Pancreatic Lineage. Cellular Reprogramming, 2017, 19, 255-262.	0.5	8
18	Applications of particulate oxygen-generating substances (POGS) in the bioartificial pancreas. Biomaterials Science, 2017, 5, 2437-2447.	2.6	52

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19	In vivo transplantation of 3D encapsulated ovarian constructs in rats corrects abnormalities of ovarian failure. Nature Communications, 2017, 8, 1858.	5.8	35
20	Methods for Incorporating Oxygen-Generating Biomaterials into Cell Culture and Microcapsule Systems. Methods in Molecular Biology, 2017, 1479, 135-141.	0.4	11
21	Retrieval of Microencapsulated Islet Grafts for Post-transplant Evaluation. Methods in Molecular Biology, 2017, 1479, 157-171.	0.4	6
22	A Method of Porcine Pancreatic Islet Isolation for Microencapsulation. Methods in Molecular Biology, 2017, 1479, 175-189.	0.4	1
23	Selective Osmotic Shock (SOS)-Based Islet Isolation for Microencapsulation. Methods in Molecular Biology, 2017, 1479, 191-198.	0.4	2
24	Compartmentalization of Two Cell Types in Multilayered Alginate Microcapsules. Methods in Molecular Biology, 2017, 1479, 225-235.	0.4	3
25	Applications of Cell Microencapsulation. Methods in Molecular Biology, 2017, 1479, 23-39.	0.4	7
26	Microfluidic Approach to Cell Microencapsulation. Methods in Molecular Biology, 2017, 1479, 71-76.	0.4	7
27	Polymeric Materials for Perm-Selective Coating of Alginate Microbeads. Methods in Molecular Biology, 2017, 1479, 95-109.	0.4	8
28	Determination of the Mechanical Strength of Microcapsules. Methods in Molecular Biology, 2017, 1479, 111-118.	0.4	2
29	Microencapsulation of porcine thyroid cell organoids within a polymer microcapsule construct. Experimental Biology and Medicine, 2017, 242, 286-296.	1.1	28
30	<i>In Vitro</i> Proliferation of Porcine Pancreatic Islet Cells for <i>β</i> Cell Therapy Applications. Journal of Diabetes Research, 2016, 2016, 1-8.	1.0	2
31	Evolution of Islet Transplantation for the Last 30 Years. Pancreas, 2016, 45, 8-20.	0.5	70
32	Winner of the student award in the undergraduate category, 10th World Biomaterials Congress, May 17–22, 2016, Montreal QC, Canada: Evaluation of the tissue response to alginate encapsulated islets in an omentum pouch model. Journal of Biomedical Materials Research - Part A, 2016, 104, 1581-1590.	2.1	17
33	The combined effect of PDX1, epidermal growth factor and poly-L-ornithine on human amnion epithelial cells' differentiation. BMC Developmental Biology, 2016, 16, 8.	2.1	7
34	Long-Term Function of Islets Encapsulated in a Redesigned Alginate Microcapsule Construct in Omentum Pouches of Immune-Competent Diabetic Rats. Pancreas, 2014, 43, 605-613.	0.5	56
35	Scientific principles of regenerative medicine and their application in the female reproductive system. Maturitas, 2014, 77, 12-19.	1.0	22
36	Effects of Allogeneic Bone Marrow Derived Mesenchymal Stromal Cell Therapy on Voiding Function in a Rat Model of Parkinson Disease. Journal of Urology, 2014, 191, 850-859.	0.2	20

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37	Alginate-based strategies for therapeutic vascularization. Therapeutic Delivery, 2013, 4, 327-341.	1.2	33
38	Porcine pancreas extracellular matrix as a platform for endocrine pancreas bioengineering. Biomaterials, 2013, 34, 5488-5495.	5.7	145
39	Engineered multilayer ovarian tissue that secretes sex steroids and peptide hormones in response to gonadotropins. Biomaterials, 2013, 34, 2412-2420.	5.7	43
40	Microencapsulation of Pancreatic Islets for Use in a Bioartificial Pancreas. Methods in Molecular Biology, 2013, 1001, 261-266.	0.4	31
41	Novel 3D Co-Culture Model for Epithelial-Stromal Cells Interaction in Prostate Cancer. PLoS ONE, 2013, 8, e75187.	1.1	52
42	Microencapsulation: The Emerging Role of Microfluidics. Micro and Nanosystems, 2013, 5, 194-208.	0.3	2
43	A three-dimensional microfluidic approach to scaling up microencapsulation of cells. Biomedical Microdevices, 2012, 14, 461-469.	1.4	49
44	Design of a Bioartificial Pancreas. Journal of Investigative Medicine, 2010, 58, 831-837.	0.7	94
45	Synthesis of multilayered alginate microcapsules for the sustained release of fibroblast growth factorâ€1. Journal of Biomedical Materials Research - Part A, 2010, 95A, 632-640.	2.1	73
46	Design of a bioartificial pancreas(+). Journal of Investigative Medicine, 2010, 58, 831-7.	0.7	48
47	Effect of alginate composition and gelling cation on micro-bead swelling. Journal of Microencapsulation, 2006, 23, 29-37.	1.2	34
48	Characteristics of Poly-I-Ornithine-coated alginate microcapsules. Biomaterials, 2005, 26, 6846-6852.	5.7	143
49	The Bioartificial Pancreas: Progress and Challenges. Diabetes Technology and Therapeutics, 2005, 7, 968-985.	2.4	103
50	Role of Oxidative Stress in the Etiology of Type 2 Diabetes and the Effect of Antioxidant Supplementation on Glycemic Control. Journal of Investigative Medicine, 2004, 52, 19.2-23.	0.7	60
51	Immunoisolation techniques for islet cell transplantation. Expert Opinion on Biological Therapy, 2002, 2, 503-511.	1.4	37
52	Durability of sodium sulfate-treated polylysine-alginate microcapsules. Journal of Biomedical Materials Research Part B, 2001, 54, 396-399.	3.0	20
53	Islet cell transplantation for the treatment of diabetes mellitus. Expert Opinion on Biological Therapy, 2001, 1, 109-119.	1.4	21
54	The therapeutic potential of islet cell transplant in the treatment of diabetes. Expert Opinion on Investigational Drugs, 1998, 7, 785-795.	1.9	8

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55	Glutathione-Mediated Preservation and Enhancement of Isolated Perifused Islet Function. Journal of Surgical Research, 1995, 59, 694-698.	0.8	10