

# Andrés J García-a

## List of Publications by Year in descending order

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Version: 2024-02-01

150  
papers

10,690  
citations

28190

55  
h-index

35952

97  
g-index

162  
all docs

162  
docs citations

162  
times ranked

13807  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Biomaterial strategies for engineering implants for enhanced osseointegration and bone repair. <i>Advanced Drug Delivery Reviews</i> , 2015, 94, 53-62.                                       | 6.6  | 561       |
| 2  | Maleimide Cross-Linked Bioactive PEG Hydrogel Exhibits Improved Reaction Kinetics and Cross-Linking for Cell Encapsulation and In Situ Delivery. <i>Advanced Materials</i> , 2012, 24, 64-70. | 11.1 | 458       |
| 3  | Synthetic hydrogels for human intestinal organoid generation and colonic wound repair. <i>Nature Cell Biology</i> , 2017, 19, 1326-1335.  | 4.6  | 401       |
| 4  | Cell Adhesion Strengthening: Contributions of Adhesive Area, Integrin Binding, and Focal Adhesion Assembly. <i>Molecular Biology of the Cell</i> , 2005, 16, 4329-4340.                       | 0.9  | 373       |
| 5  | Light-triggered in vivo activation of adhesive peptides regulates cell adhesion, inflammation and vascularization of biomaterials. <i>Nature Materials</i> , 2015, 14, 352-360.               | 13.3 | 365       |
| 6  | Get a grip: integrins in cell-biomaterial interactions. <i>Biomaterials</i> , 2005, 26, 7525-7529.  | 5.7  | 292       |
| 7  | Effects of protein dose and delivery system on BMP-mediated bone regeneration. <i>Biomaterials</i> , 2011, 32, 5241-5251.   | 5.7  | 281       |
| 8  | Bioartificial matrices for therapeutic vascularization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 3323-3328.                        | 3.3  | 251       |
| 9  | Biomolecular surface coating to enhance orthopaedic tissue healing and integration. <i>Biomaterials</i> , 2007, 28, 3228-3235.  | 5.7  | 228       |
| 10 | Coating of biomaterial scaffolds with the collagen-mimetic peptide GFOGER for bone defect repair. <i>Biomaterials</i> , 2010, 31, 2574-2582.  | 5.7  | 222       |
| 11 | How vinculin regulates force transmission. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 9788-9793.                                     | 3.3  | 209       |
| 12 | Quantification of cell adhesion using a spinning disc device and application to surface-reactive materials. <i>Biomaterials</i> , 1997, 18, 1091-1098.  | 5.7  | 192       |
| 13 | Biomaterial-based antimicrobial therapies for the treatment of bacterial infections. <i>Nature Reviews Materials</i> , 2022, 7, 39-54.  | 23.3 | 184       |
| 14 | Microfluidic-Based Generation of Size-Controlled, Biofunctionalized Synthetic Polymer Microgels for Cell Encapsulation. <i>Advanced Materials</i> , 2014, 26, 3003-3008.                      | 11.1 | 174       |
| 15 | Engineering integrin-specific surfaces with a triple-helical collagen-mimetic peptide. <i>Journal of Biomedical Materials Research - Part A</i> , 2003, 65A, 511-523.                         | 2.1  | 164       |
| 16 | Nonadhesive Alginate Hydrogels Support Growth of Pluripotent Stem Cell-Derived Intestinal Organoids. <i>Stem Cell Reports</i> , 2019, 12, 381-394.  | 2.3  | 160       |
| 17 | Bone regeneration using an alpha 2 beta 1 integrin-specific hydrogel as a BMP-2 delivery vehicle. <i>Biomaterials</i> , 2014, 35, 5453-5461.  | 5.7  | 156       |
| 18 | Macrophage phenotypes in tissue repair and the foreign body response: Implications for biomaterial-based regenerative medicine strategies. <i>Acta Biomaterialia</i> , 2021, 133, 4-16.       | 4.1  | 146       |

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|----|--|------|-----------|
| 19 | Vasculogenic bio-synthetic hydrogel for enhancement of pancreatic islet engraftment and function in type 1 diabetes. <i>Biomaterials</i> , 2013, 34, 4602-4611.  | 5.7  | 142       |
| 20 | Cellular Encapsulation Enhances Cardiac Repair. <i>Journal of the American Heart Association</i> , 2013, 2, e000367.   | 1.6  | 140       |
| 21 | Hydrogel delivery of lysostaphin eliminates orthopedic implant infection by <i>Staphylococcus aureus</i> and supports fracture healing. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E4960-E4969. | 3.3  | 138       |
| 22 | Integrin-specific collagen-mimetic surfaces supporting osteoblastic differentiation. <i>Journal of Biomedical Materials Research - Part A</i> , 2004, 69A, 591-600.  | 2.1  | 136       |
| 23 | Integrin-specific hydrogels modulate transplanted human bone marrow-derived mesenchymal stem cell survival, engraftment, and reparative activities. <i>Nature Communications</i> , 2020, 11, 114.  | 5.8  | 131       |
| 24 | Vasculogenic hydrogel enhances islet survival, engraftment, and function in leading extrahepatic sites. <i>Science Advances</i> , 2017, 3, e1700184.   | 4.7  | 130       |
| 25 | Update on therapeutic vascularization strategies. <i>Regenerative Medicine</i> , 2009, 4, 65-80.   | 0.8  | 125       |
| 26 | Local immunomodulation with Fas ligand-engineered biomaterials achieves allogeneic islet graft acceptance. <i>Nature Materials</i> , 2018, 17, 732-739.  | 13.3 | 124       |
| 27 | Reduced acute inflammatory responses to microgel conformal coatings. <i>Biomaterials</i> , 2008, 29, 4605-4615.  | 5.7  | 114       |
| 28 | Self-assembling nanoparticles for intra-articular delivery of anti-inflammatory proteins. <i>Biomaterials</i> , 2012, 33, 7665-7675.   | 5.7  | 113       |
| 29 | PEG-4MAL hydrogels for human organoid generation, culture, and in vivo delivery. <i>Nature Protocols</i> , 2018, 13, 2102-2119.  | 5.5  | 113       |
| 30 | Parallel droplet microfluidics for high throughput cell encapsulation and synthetic microgel generation. <i>Microsystems and Nanoengineering</i> , 2018, 4, .  | 3.4  | 110       |
| 31 | Material-driven fibronectin assembly for high-efficiency presentation of growth factors. <i>Science Advances</i> , 2016, 2, e1600188.  | 4.7  | 104       |
| 32 | Synthetic matrices reveal contributions of ECM biophysical and biochemical properties to epithelial morphogenesis. <i>Journal of Cell Biology</i> , 2016, 212, 113-124.  | 2.3  | 100       |
| 33 | Synthetic hydrogels mimicking basement membrane matrices to promote cell-matrix interactions. <i>Matrix Biology</i> , 2017, 57-58, 324-333.  | 1.5  | 99        |
| 34 | Engineered VEGF-releasing PEG-MAL hydrogel for pancreatic islet vascularization. <i>Drug Delivery and Translational Research</i> , 2015, 5, 125-136.   | 3.0  | 96        |
| 35 | Integrin-specific hydrogels functionalized with VEGF for vascularization and bone regeneration of critical-size bone defects. <i>Journal of Biomedical Materials Research - Part A</i> , 2016, 104, 889-900.   | 2.1  | 96        |
| 36 | Receptor control in mesenchymal stem cell engineering. <i>Nature Reviews Materials</i> , 2018, 3, .  | 23.3 | 96        |

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|----|--|------|-----------|
| 37 | Design of a vascularized synthetic poly(ethylene glycol) macroencapsulation device for islet transplantation. <i>Biomaterials</i> , 2018, 172, 54-65.  | 5.7  | 94        |
| 38 | Micropatterned Surfaces to Engineer Focal Adhesions for Analysis of Cell Adhesion Strengthening. <i>Langmuir</i> , 2002, 18, 5579-5584.  | 1.6  | 93        |
| 39 | Simple coating with fibronectin fragment enhances stainless steel screw osseointegration in healthy and osteoporotic rats. <i>Biomaterials</i> , 2015, 63, 137-145.  | 5.7  | 91        |
| 40 | Matrix Mechanosensing: From Scaling Concepts in $\text{â€}^{\text{TM}}$ Omics Data to Mechanisms in the Nucleus, Regeneration, and Cancer. <i>Annual Review of Biophysics</i> , 2017, 46, 295-315.   | 4.5  | 89        |
| 41 | Implantable antimicrobial biomaterials for local drug delivery in bone infection models. <i>Acta Biomaterialia</i> , 2019, 93, 2-11.   | 4.1  | 89        |
| 42 | Stick and Grip: Measurement Systems and Quantitative Analyses of Integrin-Mediated Cell Adhesion Strength. <i>Cell Biochemistry and Biophysics</i> , 2003, 39, 61-74.  | 0.9  | 86        |
| 43 | Inhibition of Bacterial Adhesion on Nanotextured Stainless Steel 316L by Electrochemical Etching. <i>ACS Biomaterials Science and Engineering</i> , 2018, 4, 90-97.  | 2.6  | 86        |
| 44 | Fibronectin Adsorption and Cell Adhesion to Mixed Monolayers of Tri(ethylene glycol)- and Methyl-Terminated Alkanethiols. <i>Langmuir</i> , 2003, 19, 1847-1852.   | 1.6  | 74        |
| 45 | Effects of substrate stiffness and actomyosin contractility on coupling between force transmission and vinculin- $\text{â€}^{\text{p}}$ axillin recruitment at single focal adhesions. <i>Molecular Biology of the Cell</i> , 2017, 28, 1901-1911. | 0.9  | 74        |
| 46 | Biomaterial-mediated strategies targeting vascularization for bone repair. <i>Drug Delivery and Translational Research</i> , 2016, 6, 77-95.   | 3.0  | 72        |
| 47 | Protease-degradable microgels for protein delivery for vascularization. <i>Biomaterials</i> , 2017, 113, 170-175.  | 5.7  | 72        |
| 48 | Simple application of fibronectin- $\text{â€}^{\text{m}}$ imetic coating enhances osseointegration of titanium implants. <i>Journal of Cellular and Molecular Medicine</i> , 2009, 13, 2602-2612.  | 1.6  | 70        |
| 49 | Lysostaphin and BMP-2 co-delivery reduces <i>S. aureus</i> infection and regenerates critical-sized segmental bone defects. <i>Science Advances</i> , 2019, 5, eaaw1228.   | 4.7  | 70        |
| 50 | Inhaled bacteriophage-loaded polymeric microparticles ameliorate acute lung infections. <i>Nature Biomedical Engineering</i> , 2018, 2, 841-849.   | 11.6 | 68        |
| 51 | IFN- $\text{â€}^{\text{3}}$ -tethered hydrogels enhance mesenchymal stem cell-based immunomodulation and promote tissue repair. <i>Biomaterials</i> , 2019, 220, 119403.   | 5.7  | 66        |
| 52 | CIM $\text{â€}^{\text{â€}}$ monolithic anion-exchange chromatography as a useful alternative to CsCl gradient purification of bacteriophage particles. <i>Virology</i> , 2012, 434, 265-270.   | 1.1  | 65        |
| 53 | Tuning cell adhesive properties via layer-by-layer assembly of chitosan and alginate. <i>Acta Biomaterialia</i> , 2017, 51, 279-293.   | 4.1  | 62        |
| 54 | Engineered microenvironments for synergistic VEGF $\text{â€}^{\text{â€}}$ Integrin signalling during vascularization. <i>Biomaterials</i> , 2017, 126, 61-74.  | 5.7  | 61        |

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|----|--|------|-----------|
| 55 | Microfluidic platform for studying osteocyte mechanoregulation of breast cancer bone metastasis. Integrative Biology (United Kingdom), 2019, 11, 119-129.  | 0.6  | 61        |
| 56 | Bacteriophage delivering hydrogels reduce biofilm formation in vitro and infection in vivo. Journal of Biomedical Materials Research - Part A, 2020, 108, 39-49.   | 2.1  | 59        |
| 57 | Biomimetic Surfaces for Control of Cell Adhesion to Facilitate Bone Formation. Critical Reviews in Eukaryotic Gene Expression, 2002, 12, 151-162.  | 0.4  | 58        |
| 58 | Resolvin E1 is a pro-repair molecule that promotes intestinal epithelial wound healing. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 9477-9482.                             | 3.3  | 56        |
| 59 | Photo-Activatable Surfaces for Cell Migration Assays. Advanced Functional Materials, 2013, 23, 5974-5980.  | 7.8  | 55        |
| 60 | Nanoengineered Particles for Enhanced Intra-Articular Retention and Delivery of Proteins. Advanced Healthcare Materials, 2014, 3, 1562-1567.   | 3.9  | 55        |
| 61 | Protease-degradable PEG-maleimide coating with on-demand release of IL-1Ra to improve tissue response to neural electrodes. Biomaterials, 2015, 44, 55-70.   | 5.7  | 55        |
| 62 | Vinculin regulates directionality and cell polarity in two- and three-dimensional matrix and three-dimensional microtrack migration. Molecular Biology of the Cell, 2016, 27, 1431-1441.                                   | 0.9  | 55        |
| 63 | Methods for Generating Hydrogel Particles for Protein Delivery. Annals of Biomedical Engineering, 2016, 44, 1946-1958.   | 1.3  | 54        |
| 64 | Immunotherapy via PD-L1-presenting biomaterials leads to long-term islet graft survival. Science Advances, 2020, 6, eaba5573.  | 4.7  | 54        |
| 65 | Intramyocardial Delivery of Notch Ligand-Containing Hydrogels Improves Cardiac Function and Angiogenesis Following Infarction. Tissue Engineering - Part A, 2015, 21, 2315-2322.   | 1.6  | 52        |
| 66 | Bacteria-Based Materials for Stem Cell Engineering. Advanced Materials, 2018, 30, e1804310.  | 11.1 | 52        |
| 67 | Synthetic matrix enhances transplanted satellite cell engraftment in dystrophic and aged skeletal muscle with comorbid trauma. Science Advances, 2018, 4, eaar4008.  | 4.7  | 51        |
| 68 | PEG-Maleimide Hydrogels for Protein and Cell Delivery in Regenerative Medicine. Annals of Biomedical Engineering, 2014, 42, 312-322.   | 1.3  | 50        |
| 69 | A rapid method for determining protein diffusion through hydrogels for regenerative medicine applications. APL Bioengineering, 2018, 2, 026110.  | 3.3  | 50        |
| 70 | The modulation of cardiac progenitor cell function by hydrogel-dependent Notch1 activation. Biomaterials, 2014, 35, 8103-8112.   | 5.7  | 49        |
| 71 | Adenosine Production by Biomaterial-Supported Mesenchymal Stromal Cells Reduces the Innate Inflammatory Response in Myocardial Ischemia/Reperfusion Injury. Journal of the American Heart Association, 2018, 7, .          | 1.6  | 48        |
| 72 | Synthetic poly(ethylene glycol)-based microfluidic islet encapsulation reduces graft volume for delivery to highly vascularized and retrievable transplant site. American Journal of Transplantation, 2019, 19, 1315-1327. | 2.6  | 48        |

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|----|---|------|-----------|
| 73 | Focal adhesion kinase-dependent regulation of adhesive forces involves vinculin recruitment to focal adhesions. <i>Biology of the Cell</i> , 2010, 102, 203-213.  | 0.7  | 44        |
| 74 | Vinculin-dependent actin bundling regulates cell migration and traction forces. <i>Biochemical Journal</i> , 2015, 465, 383-393.  | 1.7  | 43        |
| 75 | The effect of conditional inactivation of beta 1 integrins using twist 2 Cre, Osterix Cre and osteocalcin Cre lines on skeletal phenotype. <i>Bone</i> , 2014, 68, 131-141.   | 1.4  | 40        |
| 76 | Biofunctional hydrogels for skeletal muscle constructs. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2016, 10, 967-976.   | 1.3  | 40        |
| 77 | Peptide-functionalized poly[oligo(ethylene glycol) methacrylate] brushes on dopamine-coated stainless steel for controlled cell adhesion. <i>Acta Biomaterialia</i> , 2017, 59, 108-116.  | 4.1  | 37        |
| 78 | Co-delivery of Wnt7a and muscle stem cells using synthetic bioadhesive hydrogel enhances murine muscle regeneration and cell migration during engraftment. <i>Acta Biomaterialia</i> , 2019, 94, 243-252.                                       | 4.1  | 36        |
| 79 | Engineering hydrogels with affinity-bound laminin as 3D neural stem cell culture systems. <i>Biomaterials Science</i> , 2019, 7, 5338-5349.   | 2.6  | 35        |
| 80 | Tobacco Mosaic Virus Functionalized Alginate Hydrogel Scaffolds for Bone Regeneration in Rats with Cranial Defect. <i>ACS Biomaterials Science and Engineering</i> , 2016, 2, 606-615.  | 2.6  | 34        |
| 81 | TNF $\pm$ promotes mucosal wound repair through enhanced platelet activating factor receptor signaling in the epithelium. <i>Mucosal Immunology</i> , 2019, 12, 909-918.  | 2.7  | 34        |
| 82 | Toll-like receptor 2-modulating pectin-polymers in alginate-based microcapsules attenuate immune responses and support islet-xenograft survival. <i>Biomaterials</i> , 2021, 266, 120460.   | 5.7  | 34        |
| 83 | FasL microgels induce immune acceptance of islet allografts in nonhuman primates. <i>Science Advances</i> , 2022, 8, eabm9881.  | 4.7  | 32        |
| 84 | A blueprint for academic laboratories to produce SARS-CoV-2 quantitative RT-PCR test kits. <i>Journal of Biological Chemistry</i> , 2020, 295, 15438-15453.   | 1.6  | 31        |
| 85 | Engineered matrices for skeletal muscle satellite cell engraftment and function. <i>Matrix Biology</i> , 2017, 60-61, 96-109.   | 1.5  | 30        |
| 86 | Localized immune tolerance from FasL-functionalized PLG scaffolds. <i>Biomaterials</i> , 2019, 192, 271-281.  | 5.7  | 30        |
| 87 | Biomaterial strategies for improved intra-articular drug delivery. <i>Journal of Biomedical Materials Research - Part A</i> , 2021, 109, 426-436.   | 2.1  | 30        |
| 88 | Articular Cartilage- and Synoviocyte-Binding Poly(ethylene glycol) Nanocomposite Microgels as Intra-Articular Drug Delivery Vehicles for the Treatment of Osteoarthritis. <i>ACS Biomaterials Science and Engineering</i> , 2020, 6, 5084-5095. | 2.6  | 29        |
| 89 | Sensing rigidity. <i>Nature Materials</i> , 2014, 13, 539-540.  | 13.3 | 28        |
| 90 | Evaluation of Hydrogels Presenting Extracellular Matrix-Derived Adhesion Peptides and Encapsulating Cardiac Progenitor Cells for Cardiac Repair. <i>ACS Biomaterials Science and Engineering</i> , 2018, 4, 200-210.                            | 2.6  | 28        |

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|-----|--|-----|-----------|
| 91  | Synthesis of self-assembled IL-1Ra-presenting nanoparticles for the treatment of osteoarthritis. <i>Journal of Biomedical Materials Research - Part A</i> , 2016, 104, 595-599.                        | 2.1 | 27        |
| 92  | Dual delivery of IL-10 and AT-RvD1 from PEG hydrogels polarize immune cells towards pro-regenerative phenotypes. <i>Biomaterials</i> , 2021, 268, 120475.  | 5.7 | 27        |
| 93  | Force-FAK signaling coupling at individual focal adhesions coordinates mechanosensing and microtissue repair. <i>Nature Communications</i> , 2021, 12, 2359.   | 5.8 | 27        |
| 94  | Synchronized cell attachment triggered by photo-activatable adhesive ligands allows QCM-based detection of early integrin binding. <i>Scientific Reports</i> , 2015, 5, 9533.                          | 1.6 | 26        |
| 95  | A Minimally Invasive, Translational Method to Deliver Hydrogels to the Heart Through the Pericardial Space. <i>JACC Basic To Translational Science</i> , 2017, 2, 601-609.                             | 1.9 | 26        |
| 96  | Desmocollin-2 promotes intestinal mucosal repair by controlling integrin-dependent cell adhesion and migration. <i>Molecular Biology of the Cell</i> , 2020, 31, 407-418.                              | 0.9 | 26        |
| 97  | Localized Immunomodulation with PD-L1 Results in Sustained Survival and Function of Allogeneic Islets without Chronic Immunosuppression. <i>Journal of Immunology</i> , 2020, 204, 2840-2851.          | 0.4 | 26        |
| 98  | Bio-synthetic materials for immunomodulation of islet transplants. <i>Advanced Drug Delivery Reviews</i> , 2017, 114, 266-271.   | 6.6 | 25        |
| 99  | Triple growth factor delivery promotes functional bone regeneration following composite musculoskeletal trauma. <i>Acta Biomaterialia</i> , 2021, 127, 180-192.  | 4.1 | 25        |
| 100 | Inhibition of TBK1/IKK $\mu$ Promotes Regeneration of Pancreatic $\beta$ -cells. <i>Scientific Reports</i> , 2018, 8, 15587.   | 1.6 | 24        |
| 101 | Endothelial retention and phenotype on carbonized cardiovascular implant surfaces. <i>Biomaterials</i> , 2014, 35, 7714-7723.  | 5.7 | 21        |
| 102 | Linkage Groups within Thiol-ene Photoclickable PEG Hydrogels Control In Vivo Stability. <i>Advanced Healthcare Materials</i> , 2019, 8, e1900371.  | 3.9 | 21        |
| 103 | Dynamic culture substrate that captures a specific extracellular matrix protein in response to light. <i>Science and Technology of Advanced Materials</i> , 2011, 12, 044608.                          | 2.8 | 19        |
| 104 | Phototriggered fibril-like environments arbitrate cell escapes and migration from endothelial monolayers. <i>Biomaterials</i> , 2016, 82, 113-123.   | 5.7 | 19        |
| 105 | PEG hydrogel containing calcium-releasing particles and mesenchymal stromal cells promote vessel maturation. <i>Acta Biomaterialia</i> , 2018, 67, 53-65.  | 4.1 | 19        |
| 106 | Evaluation of encapsulating and microporous nondegradable hydrogel scaffold designs on islet engraftment in rodent models of diabetes. <i>Biotechnology and Bioengineering</i> , 2018, 115, 2356-2364. | 1.7 | 19        |
| 107 | Heparin/Collagen Coatings Improve Human Mesenchymal Stromal Cell Response to Interferon Gamma. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 2793-2803.                                   | 2.6 | 19        |
| 108 | Engineered materials to model human intestinal development and cancer using organoids. <i>Experimental Cell Research</i> , 2019, 377, 109-114.   | 1.2 | 19        |

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|-----|---|------|-----------|
| 109 | Optoregulated force application to cellular receptors using molecular motors. <i>Nature Communications</i> , 2021, 12, 3580.  | 5.8  | 19        |
| 110 | Generation of small intestinal organoids for experimental intestinal physiology. <i>Methods in Cell Biology</i> , 2020, 159, 143-174.   | 0.5  | 18        |
| 111 | Microfluidics generation of chitosan microgels containing glycerylphosphate crosslinker for in situ human mesenchymal stem cells encapsulation. <i>Materials Science and Engineering C</i> , 2021, 120, 111716. | 3.8  | 18        |
| 112 | Near-infrared fluorescence imaging as an alternative to bioluminescent bacteria to monitor biomaterial-associated infections. <i>Acta Biomaterialia</i> , 2014, 10, 2935-2944.                                  | 4.1  | 17        |
| 113 | Hic-5 Mediates TGF $\beta$ -Induced Adhesion in Vascular Smooth Muscle Cells by a Nox4-Dependent Mechanism. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2015, 35, 1198-1206.                    | 1.1  | 17        |
| 114 | Minimally Invasive Delivery of Hydrogel-Encapsulated Amiodarone to the Epicardium Reduces Atrial Fibrillation. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2018, 11, e006408.                        | 2.1  | 17        |
| 115 | Engineered Biomaterials for Enhanced Function of Insulin-Secreting $\beta$ -Cell Organoids. <i>Advanced Functional Materials</i> , 2020, 30, 2000134.   | 7.8  | 16        |
| 116 | Functionalization of Alginate with Extracellular Matrix Peptides Enhances Viability and Function of Encapsulated Porcine Islets. <i>Advanced Healthcare Materials</i> , 2020, 9, e2000102.                      | 3.9  | 15        |
| 117 | Analyzing immune response to engineered hydrogels by hierarchical clustering of inflammatory cell subsets. <i>Science Advances</i> , 2022, 8, eabd8056.   | 4.7  | 15        |
| 118 | Hydrolytically Degradable Microgels with Tunable Mechanical Properties Modulate the Host Immune Response. <i>Small</i> , 2022, 18, e2106896.  | 5.2  | 14        |
| 119 | Bone Cells Grown on Micropatterned Surfaces are More Sensitive to Fluid Shear Stress. <i>Cellular and Molecular Bioengineering</i> , 2008, 1, 182-188.  | 1.0  | 13        |
| 120 | Controlled JAGGED1 delivery induces human embryonic palate mesenchymal cells to form osteoblasts. <i>Journal of Biomedical Materials Research - Part A</i> , 2018, 106, 552-560.                                | 2.1  | 13        |
| 121 | Surveillance-to-Diagnostic Testing Program for Asymptomatic SARS-CoV-2 Infections on a Large, Urban Campus in Fall 2020. <i>Epidemiology</i> , 2022, 33, 209-216.   | 1.2  | 13        |
| 122 | Synthetic Matrix Scaffolds Engineer the In Vivo Tumor Immune Microenvironment for Immunotherapy Screening. <i>Advanced Materials</i> , 2022, 34, e2108084.  | 11.1 | 13        |
| 123 | Synthetic hydrogels identify matrix physicochemical properties required for renal epithelial cell tubulogenesis. <i>Journal of Cell Science</i> , 2019, 132, .  | 1.2  | 12        |
| 124 | An affinity-based approach to engineer laminin-presenting cell instructive microenvironments. <i>Biomaterials</i> , 2019, 192, 601-611.   | 5.7  | 12        |
| 125 | Contributions of the integrin $\beta$ 1 tail to cell adhesive forces. <i>Experimental Cell Research</i> , 2015, 332, 212-222.   | 1.2  | 11        |
| 126 | Localized hydrogel delivery of dendritic cells for attenuation of multiple sclerosis in a murine model. <i>Journal of Biomedical Materials Research - Part A</i> , 2021, 109, 1247-1255.                        | 2.1  | 11        |



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|-----|---|------|-----------|
| 127 | Material-driven fibronectin assembly rescues matrix defects due to mutations in collagen IV in fibroblasts. <i>Biomaterials</i> , 2020, 252, 120090.  | 5.7  | 9         |
| 128 | Synthetic hydrogels engineered to promote collecting lymphatic vessel sprouting. <i>Biomaterials</i> , 2022, 284, 121483.   | 5.7  | 9         |
| 129 | Human mesenchymal stem cell behavior on segmented polyurethanes prepared with biologically active chain extenders. <i>Journal of Materials Science: Materials in Medicine</i> , 2016, 27, 38.   | 1.7  | 8         |
| 130 | Bacteriophage-Loaded Poly(lactic acid-glycolic acid) Microparticles Mitigate <i>Staphylococcus aureus</i> Infection and Cocultures of <i>Staphylococcus aureus</i> and <i>Pseudomonas aeruginosa</i> . <i>Advanced Healthcare Materials</i> , 2022, 11, e2102539. | 3.9  | 8         |
| 131 | The intersection of fracture healing and infection: Orthopaedics research society workshop 2021. <i>Journal of Orthopaedic Research</i> , 2022, 40, 541-552.  | 1.2  | 8         |
| 132 | Brief exposure to hyperglycemia activates dendritic cells in vitro and in vivo. <i>Journal of Cellular Physiology</i> , 2020, 235, 5120-5129.   | 2.0  | 7         |
| 133 | JAGGED1 stimulates cranial neural crest cell osteoblast commitment pathways and bone regeneration independent of canonical NOTCH signaling. <i>Bone</i> , 2021, 143, 115657.  | 1.4  | 7         |
| 134 | Engineering $\hat{2}$ Cell Replacement Therapies for Type 1 Diabetes: Biomaterial Advances and Considerations for Macroscale Constructs. <i>Annual Review of Pathology: Mechanisms of Disease</i> , 2022, 17, 485-513.  | 9.6  | 7         |
| 135 | Bioactive Hydrogels: Maleimide Cross-Linked Bioactive PEG Hydrogel Exhibits Improved Reaction Kinetics and Cross-Linking for Cell Encapsulation and In Situ Delivery ( <i>Adv. Mater.</i> 1/2012). <i>Advanced Materials</i> , 2012, 24, 2-2.                     | 11.1 | 6         |
| 136 | The Extracellular Matrix and Cell-Biomaterial Interactions. , 2020, , 701-715.  |      | 6         |
| 137 | A hydrogel platform for co-delivery of immunomodulatory proteins for pancreatic islet allografts. <i>Journal of Biomedical Materials Research - Part A</i> , 2022, 110, 1728-1737.  | 2.1  | 6         |
| 138 | Tumor-Initiating Cells: Emerging Biophysical Methods of Isolation. <i>Current Stem Cell Reports</i> , 2016, 2, 21-32.   | 0.7  | 5         |
| 139 | High-throughput on-chip human mesenchymal stromal cell potency prediction. <i>Advanced Healthcare Materials</i> , 2021, , 2101995.  | 3.9  | 4         |
| 140 | Host type 2 immune response to xenogeneic serum components impairs biomaterial-directed osteo-regenerative therapies. <i>Biomaterials</i> , 2022, 286, 121601.  | 5.7  | 4         |
| 141 | Enabling mesenchymal stromal cell immunomodulatory analysis using scalable platforms. <i>Integrative Biology (United Kingdom)</i> , 2019, 11, 154-162.  | 0.6  | 3         |
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