

# Yingrui Deng

## List of Publications by Year in descending order

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89  
papers

6,393  
citations

57758

44  
h-index

69250

77  
g-index

92  
all docs

92  
docs citations

92  
times ranked

7719  
citing authors

#	ARTICLE	IF	CITATIONS
1	Bisphosphonate-based hydrogel mediates biomimetic negative feedback regulation of osteoclastic activity to promote bone regeneration. <i>Bioactive Materials</i> , 2022, 13, 9-22.	15.6	26
2	Biomaterial-mediated presentation of wnt5a mimetic ligands enhances chondrogenesis and metabolism of stem cells by activating non-canonical Wnt signaling. <i>Biomaterials</i> , 2022, 281, 121316.	11.4	8
3	Phage-Derived Depolymerase as an Antibiotic Adjuvant Against Multidrug-Resistant <i>Acinetobacter baumannii</i> . <i>Frontiers in Microbiology</i> , 2022, 13, 845500.	3.5	21
4	The Effect of the Nanoparticle Shape on T Cell Activation. <i>Small</i> , 2022, 18, e2107373.	10.0	15
5	Biomaterial-Mediated Presentation of Jagged-1 Mimetic Ligand Enhances Cellular Activation of Notch Signaling and Bone Regeneration. <i>ACS Nano</i> , 2022, 16, 1051-1062.	14.6	14
6	Adhesive Hemostatic Hydrogel with Ultrafast Gelation Arrests Acute Upper Gastrointestinal Hemorrhage in Pigs. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	48
7	Magnesium-Encapsulated Injectable Hydrogel and 3D-Engineered Polycaprolactone Conduit Facilitate Peripheral Nerve Regeneration. <i>Advanced Science</i> , 2022, 9, .	11.2	45
8	Surface decoration of development-inspired synthetic N-cadherin motif via Ac-BP promotes osseointegration of metal implants. <i>Bioactive Materials</i> , 2021, 6, 1353-1364.	15.6	10
9	Injectable chitin hydrogels with self-healing property and biodegradability as stem cell carriers. <i>Carbohydrate Polymers</i> , 2021, 256, 117574.	10.2	32
10	Manipulation of the Nanoscale Presentation of Integrin Ligand Produces Cancer Cells with Enhanced Stemness and Robust Tumorigenicity. <i>Nano Letters</i> , 2021, 21, 3225-3236.	9.1	28
11	Multifunctional Nanoprobe for the Delivery of Therapeutic siRNA and Real-Time Molecular Imaging of Parkinson's Disease Biomarkers. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 11609-11620.	8.0	14
12	Nanomedicine-Boosting Tumor Immunogenicity for Enhanced Immunotherapy. <i>Advanced Functional Materials</i> , 2021, 31, 2011171.	14.9	84
13	Ultrafast self-gelling powder mediates robust wet adhesion to promote healing of gastrointestinal perforations. <i>Science Advances</i> , 2021, 7, .	10.3	118
14	Ultrafast Self-Gelling and Wet Adhesive Powder for Acute Hemostasis and Wound Healing. <i>Advanced Functional Materials</i> , 2021, 31, 2102583.	14.9	146
15	Structurally Dynamic Hydrogels for Biomedical Applications: Pursuing a Fine Balance between Macroscopic Stability and Microscopic Dynamics. <i>Chemical Reviews</i> , 2021, 121, 11149-11193.	47.7	161
16	Enhanced mechanosensing of cells in synthetic 3D matrix with controlled biophysical dynamics. <i>Nature Communications</i> , 2021, 12, 3514.	12.8	92
17	Immunoregulation of Macrophages by Controlling Winding and Unwinding of Nanohelical Ligands. <i>Advanced Functional Materials</i> , 2021, 31, 2103409.	14.9	19
18	Rationally designed protein cross-linked hydrogel for bone regeneration via synergistic release of magnesium and zinc ions. <i>Biomaterials</i> , 2021, 274, 120895.	11.4	55

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19	Nanoparticle-Assembled Vacuolated Coacervates Control Macromolecule Spatiotemporal Distribution to Provide a Stable Segregated Cell Microenvironment. <i>Advanced Materials</i> , 2021, 33, 2007209.	21.0	9
20	Cell-adaptable dynamic hydrogel reinforced with stem cells improves the functional repair of spinal cord injury by alleviating neuroinflammation. <i>Biomaterials</i> , 2021, 279, 121190.	11.4	53
21	Nanoparticle-assembled bioadhesive coacervate coating with prolonged gastrointestinal retention for inflammatory bowel disease therapy. <i>Nature Communications</i> , 2021, 12, 7162.	12.8	70
22	Organic semiconducting polymer amphiphile for near-infrared-II light-triggered phototheranostics. <i>Biomaterials</i> , 2020, 232, 119684.	11.4	96
23	Desuccinylation-Triggered Peptide Self-Assembly: Live Cell Imaging of SIRT5 Activity and Mitochondrial Activity Modulation. <i>Journal of the American Chemical Society</i> , 2020, 142, 18150-18159.	13.7	84
24	Functional hydrogel bioink, a key challenge of 3D cellular bioprinting. <i>APL Bioengineering</i> , 2020, 4, 030401.	6.2	27
25	Bioadhesive hydrogels demonstrating pH-independent and ultrafast gelation promote gastric ulcer healing in pigs. <i>Science Translational Medicine</i> , 2020, 12, .	12.4	147
26	Mussel cuticle-mimetic ultra-tough, self-healing elastomers with double-locked nanodomains exhibit fast stimuli-responsive shape transformation. <i>Journal of Materials Chemistry A</i> , 2020, 8, 12463-12471.	10.3	22
27	Bisphosphonate-based nanocomposite hydrogels for biomedical applications. <i>Bioactive Materials</i> , 2020, 5, 819-831.	15.6	55
28	Biomimetic Presentation of Cryptic Ligands <i>via</i> Single-Chain Nanogels for Synergistic Regulation of Stem Cells. <i>ACS Nano</i> , 2020, 14, 4027-4035.	14.6	22
29	Biocompatible cellulose-based supramolecular nanoparticles driven by host-guest interactions for drug delivery. <i>Carbohydrate Polymers</i> , 2020, 237, 116114.	10.2	34
30	Effective Phototheranostics of Brain Tumor Assisted by Near-Infrared-II Light-Responsive Semiconducting Polymer Nanoparticles. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 33492-33499.	8.0	100
31	Long-Term Detection of Oncogenic MicroRNA in Living Human Cancer Cells by Gold@Polydopamine-Shell Nanoprobe. <i>ACS Biomaterials Science and Engineering</i> , 2020, 6, 3778-3783.	5.2	13
32	Soft Polymeric Matrix as a Macroscopic Cage for Magnetically Modulating Reversible Nanoscale Ligand Presentation. <i>Nano Letters</i> , 2020, 20, 3207-3216.	9.1	34
33	Hierarchical Porous Poly(l-lactic acid) Nanofibrous Membrane for Ultrafine Particulate Aerosol Filtration. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 46261-46268.	8.0	77
34	Synthetic presentation of noncanonical Wnt5a motif promotes mechanosensing-dependent differentiation of stem cells and regeneration. <i>Science Advances</i> , 2019, 5, eaaw3896.	10.3	64
35	Rapid and room temperature detection of single nucleotide variation with enhanced discrimination by crowding assisted allele specific extension. <i>Chemical Communications</i> , 2019, 55, 12052-12055.	4.1	1
36	Functionalization of SF/HAP Scaffold with GO-PEI-miRNA inhibitor Complexes to Enhance Bone Regeneration through Activating Transcription Factor 4. <i>Theranostics</i> , 2019, 9, 4525-4541.	10.0	43

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37	Conformational manipulation of scale-up prepared single-chain polymeric nanogels for multiscale regulation of cells. <i>Nature Communications</i> , 2019, 10, 2705.	12.8	60
38	Efficient catechol functionalization of biopolymeric hydrogels for effective multiscale bioadhesion. <i>Materials Science and Engineering C</i> , 2019, 103, 109835.	7.3	34
39	Injectable stem cell-laden supramolecular hydrogels enhance in situ osteochondral regeneration via the sustained co-delivery of hydrophilic and hydrophobic chondrogenic molecules. <i>Biomaterials</i> , 2019, 210, 51-61.	11.4	179
40	Patterning Perfluorinated Surface with Graphene Oxide and the Microarray Applications. <i>Micromachines</i> , 2019, 10, 173.	2.9	2
41	Highly Dynamic Nanocomposite Hydrogels Self-Assembled by Metal Ion-Ligand Coordination. <i>Small</i> , 2019, 15, e1900242.	10.0	45
42	Immunoregulation of macrophages by dynamic ligand presentation via ligand-cation coordination. <i>Nature Communications</i> , 2019, 10, 1696.	12.8	84
43	Stretchable and Bioadhesive Supramolecular Hydrogels Activated by a One-Step Two-Bird Postgelation Functionalization Method. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 16328-16335.	8.0	25
44	Magnetic Enhancement of Chondrogenic Differentiation of Mesenchymal Stem Cells. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 2200-2207.	5.2	33
45	Anisotropic Ligand Nanogeometry Modulates the Adhesion and Polarization State of Macrophages. <i>Nano Letters</i> , 2019, 19, 1963-1975.	9.1	47
46	Molecular cargo delivery using multicellular magnetic microswimmers. <i>Applied Materials Today</i> , 2019, 15, 242-251.	4.3	52
47	Dynamic and Cell-Infiltratable Hydrogels as Injectable Carrier of Therapeutic Cells and Drugs for Treating Challenging Bone Defects. <i>ACS Central Science</i> , 2019, 5, 440-450.	11.3	166
48	Anisotropic Nanoscale Presentation of Cell Adhesion Ligand Enhances the Recruitment of Diverse Integrins in Adhesion Structures and Mechanosensing-Dependent Differentiation of Stem Cells. <i>Advanced Functional Materials</i> , 2019, 29, 1806822.	14.9	38
49	Photocontrolled siRNA Delivery and Biomarker-Triggered Luminogens of Aggregation-Induced Emission by Up-Conversion $\text{NaYF}_4:\text{Yb}^{3+}, \text{Tm}^{3+}@\text{SiO}_2$ Nanoparticles for Inducing and Monitoring Stem-Cell Differentiation. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 22074-22084.	8.0	43
50	Remote Control of Heterodimeric Magnetic Nanoswitch Regulates the Adhesion and Differentiation of Stem Cells. <i>Journal of the American Chemical Society</i> , 2018, 140, 5909-5913.	13.7	67
51	Bioadhesive Polymersome for Localized and Sustained Drug Delivery at Pathological Sites with Harsh Enzymatic and Fluidic Environment via Supramolecular Host-Guest Complexation. <i>Small</i> , 2018, 14, 1702288.	10.0	40
52	One-pot solvent exchange preparation of non-swellable, thermoplastic, stretchable and adhesive supramolecular hydrogels based on dual synergistic physical crosslinking. <i>NPG Asia Materials</i> , 2018, 10, e455-e455.	7.9	59
53	Multiscale reconstruction of a synthetic biomimetic micro-niche for enhancing and monitoring the differentiation of stem cells. <i>Biomaterials</i> , 2018, 173, 87-99.	11.4	14
54	Near-infrared light-controlled regulation of intracellular calcium to modulate macrophage polarization. <i>Biomaterials</i> , 2018, 178, 681-696.	11.4	71

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55	Organic Semiconducting Polymer Nanoparticles for Photoacoustic Labeling and Tracking of Stem Cells in the Second Near-Infrared Window. <i>ACS Nano</i> , 2018, 12, 12201-12211.	14.6	127
56	An In Situ Reversible Heterodimeric Nanoswitch Controlled by Metal-Ion-Ligand Coordination Regulates the Mechanosensing and Differentiation of Stem Cells. <i>Advanced Materials</i> , 2018, 30, e1803591.	21.0	44
57	Detection of Matrix Metalloproteinase 13 for Monitoring Stem Cell Differentiation and Early Diagnosis of Osteoarthritis by Fluorescent Light-Up Probes with Aggregation-Induced Emission Characteristics. <i>Advanced Biology</i> , 2018, 2, 1800010.	3.0	12
58	Remote Control of Intracellular Calcium Using Upconversion Nanotransducers Regulates Stem Cell Differentiation In Vivo. <i>Advanced Functional Materials</i> , 2018, 28, 1802642.	14.9	58
59	Magnetic Manipulation of Reversible Nanocaging Controls <i>In Vivo</i> Adhesion and Polarization of Macrophages. <i>ACS Nano</i> , 2018, 12, 5978-5994.	14.6	67
60	Supramolecular hydrogels cross-linked by preassembled host-guest PEG cross-linkers resist excessive, ultrafast, and non-resting cyclic compression. <i>NPG Asia Materials</i> , 2018, 10, 788-799.	7.9	50
61	Effect of inorganic/organic ratio and chemical coupling on the performance of porous silica/chitosan hybrid scaffolds. <i>Materials Science and Engineering C</i> , 2017, 70, 969-975.	7.3	30
62	Targeted Covalent Inhibition of Grb2-Sos1 Interaction through Proximity-Induced Conjugation in Breast Cancer Cells. <i>Molecular Pharmaceutics</i> , 2017, 14, 1548-1557.	4.6	32
63	A Gold@Polydopamine Core-Shell Nanoprobe for Long-Term Intracellular Detection of MicroRNAs in Differentiating Stem Cells. <i>Methods in Molecular Biology</i> , 2017, 1570, 155-164.	0.9	5
64	Sulfated hyaluronic acid hydrogels with retarded degradation and enhanced growth factor retention promote hMSC chondrogenesis and articular cartilage integrity with reduced hypertrophy. <i>Acta Biomaterialia</i> , 2017, 53, 329-342.	8.3	136
65	Nanolayered hybrid mediates synergistic co-delivery of ligand and ligation activator for inducing stem cell differentiation and tissue healing. <i>Biomaterials</i> , 2017, 149, 12-28.	11.4	36
66	Nanocomposite hydrogels stabilized by self-assembled multivalent bisphosphonate-magnesium nanoparticles mediate sustained release of magnesium ion and promote in-situ bone regeneration. <i>Acta Biomaterialia</i> , 2017, 64, 389-400.	8.3	117
67	Self-assembled N-cadherin mimetic peptide hydrogels promote the chondrogenesis of mesenchymal stem cells through inhibition of canonical Wnt/ $\beta$ -catenin signaling. <i>Biomaterials</i> , 2017, 145, 33-43.	11.4	100
68	Optical $\mu$ -Printing of Cellular-Scale Microscaffold Arrays for 3D Cell Culture. <i>Scientific Reports</i> , 2017, 7, 8880.	3.3	22
69	Self-Assembled Injectable Nanocomposite Hydrogels Stabilized by Bisphosphonate-Magnesium ( $Mg^{2+}$ ) Coordination Regulates the Differentiation of Encapsulated Stem Cells via Dual Crosslinking. <i>Advanced Functional Materials</i> , 2017, 27, 1701642.	14.9	110
70	Effect of cartilaginous matrix components on the chondrogenesis and hypertrophy of mesenchymal stem cells in hyaluronic acid hydrogels. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2017, 105, 2292-2300.	3.4	36
71	Synergistic effects on mesenchymal stem cell-based cartilage regeneration by chondrogenic preconditioning and mechanical stimulation. <i>Stem Cell Research and Therapy</i> , 2017, 8, 221.	5.5	52
72	Nanocarrier-Mediated Codelivery of Small Molecular Drugs and siRNA to Enhance Chondrogenic Differentiation and Suppress Hypertrophy of Human Mesenchymal Stem Cells. <i>Advanced Functional Materials</i> , 2016, 26, 2463-2472.	14.9	42

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73	Bioactive Nanocomposite Poly (Ethylene Glycol) Hydrogels Crosslinked by Multifunctional Layered Double Hydroxides Nanocrosslinkers. <i>Macromolecular Bioscience</i> , 2016, 16, 1019-1026.	4.1	28
74	Multifunctional Quantum Dot Nanoparticles for Effective Differentiation and Long-Term Tracking of Human Mesenchymal Stem Cells In Vitro and In Vivo. <i>Advanced Healthcare Materials</i> , 2016, 5, 1049-1057.	7.6	50
75	Change in viability of C2C12 myoblasts under compression, shear and oxidative challenges. <i>Journal of Biomechanics</i> , 2016, 49, 1305-1310.	2.1	11
76	Preserving the adhesion of catechol-conjugated hydrogels by thiourea-quinone coupling. <i>Biomaterials Science</i> , 2016, 4, 1726-1730.	5.4	33
77	Near-infrared light-triggered release of small molecules for controlled differentiation and long-term tracking of stem cells in vivo using upconversion nanoparticles. <i>Biomaterials</i> , 2016, 110, 1-10.	11.4	77
78	Mechanically resilient, injectable, and bioadhesive supramolecular gelatin hydrogels crosslinked by weak host-guest interactions assist cell infiltration and in situ tissue regeneration. <i>Biomaterials</i> , 2016, 101, 217-228.	11.4	249
79	Hydrogels functionalized with N-cadherin mimetic peptide enhance osteogenesis of hMSCs by emulating the osteogenic niche. <i>Biomaterials</i> , 2016, 77, 44-52.	11.4	77
80	Magnetite Nanostructured Porous Hollow Helical Microswimmers for Targeted Delivery. <i>Advanced Functional Materials</i> , 2015, 25, 5333-5342.	14.9	210
81	A Gold@Polydopamine Core-Shell Nanoprobe for Long-Term Intracellular Detection of MicroRNAs in Differentiating Stem Cells. <i>Journal of the American Chemical Society</i> , 2015, 137, 7337-7346.	13.7	202
82	Substrate Coupling Strength of Integrin-Binding Ligands Modulates Adhesion, Spreading, and Differentiation of Human Mesenchymal Stem Cells. <i>Nano Letters</i> , 2015, 15, 6592-6600.	9.1	43
83	Differential effect of hypoxia on human mesenchymal stem cell chondrogenesis and hypertrophy in hyaluronic acid hydrogels. <i>Acta Biomaterialia</i> , 2014, 10, 1333-1340.	8.3	29
84	Cell-Mediated Degradation Regulates Human Mesenchymal Stem Cell Chondrogenesis and Hypertrophy in MMP-Sensitive Hyaluronic Acid Hydrogels. <i>PLoS ONE</i> , 2014, 9, e99587.	2.5	57
85	Hydrogels that mimic developmentally relevant matrix and N-cadherin interactions enhance MSC chondrogenesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 10117-10122.	7.1	344
86	The influence of hyaluronic acid hydrogel crosslinking density and macromolecular diffusivity on human MSC chondrogenesis and hypertrophy. <i>Biomaterials</i> , 2013, 34, 413-421.	11.4	265
87	Dynamic Compressive Loading Enhances Cartilage Matrix Synthesis and Distribution and Suppresses Hypertrophy in hMSC-Laden Hyaluronic Acid Hydrogels. <i>Tissue Engineering - Part A</i> , 2012, 18, 715-724.	3.1	121
88	Coculture of Human Mesenchymal Stem Cells and Articular Chondrocytes Reduces Hypertrophy and Enhances Functional Properties of Engineered Cartilage. <i>Tissue Engineering - Part A</i> , 2011, 17, 1137-1145.	3.1	235
89	Enhanced MSC chondrogenesis following delivery of TGF- $\beta$ 3 from alginate microspheres within hyaluronic acid hydrogels in vitro and in vivo. <i>Biomaterials</i> , 2011, 32, 6425-6434.	11.4	327