Horst A Von Recum

List of Publications by Year in Descending Order

97 papers	5,304 citations	27 h-index	72 g-index
108 ext. papers	5,811 ext. citations	6 avg, IF	6.11 L-index

#	Paper	IF	Citations
97	Injectable Extracellular Matrix Microparticles Promote Heart Regeneration in Mice with Post-ischemic Heart Injury.. *Advanced Healthcare Materials*, **2022**, e2102265	10.1	2
96	PMMA Bone Cement Composite Functions as an Adjuvant Chemotherapeutic Platform for Localized and Multi-Window Release During Bone Reconstruction.. *Macromolecular Bioscience*, **2022**, e2100415	5.5	0
95	Leveraging Affinity Interactions to Prolong Drug Delivery of Protein Therapeutics. *Pharmaceutics*, **2022**, 14, 1088	6.4	0
94	Recent Advances in the Evaluation of Antimicrobial Materials for Resolution of Orthopedic Implant-Associated Infections. *ACS Infectious Diseases*, **2021**, 7, 3125-3160	5.5	2
93	Modified Cyclodextrin Microparticles to Improve PMMA Drug Delivery Without Mechanical Loss. *Macromolecular Bioscience*, **2021**, 21, e2000328	5.5	3
92	Ultrasound Triggered Drug Release from Affinity-Based Cyclodextrin Polymers for Infection Control. *Annals of Biomedical Engineering*, **2021**, 49, 2513-2521	4.7	0
91	Affinity-Based Polymers Provide Long-Term Immunotherapeutic Drug Delivery Across Particle Size Ranges Optimal for Macrophage Targeting. *Journal of Pharmaceutical Sciences*, **2021**, 110, 1693-1700	3.9	1
90	Nonthermal plasma treatment of polymers modulates biological fouling but can cause material embrittlement. *Journal of the Mechanical Behavior of Biomedical Materials*, **2021**, 113, 104126	4.1	4
89	A Polymeric Delivery System Enables Controlled Release of Genipin for Spatially-Confined In Situ Crosslinking of Injured Connective Tissues. *Journal of Pharmaceutical Sciences*, **2021**, 110, 815-823	3.9	1
88	Machine learning and big data provide crucial insight for future biomaterials discovery and research. *Acta Biomaterialia*, **2021**, 130, 54-65	10.8	5
87	Characterization of Inflammatory and Fibrotic Encapsulation Responses of Implanted Materials with Bacterial Infection. *ACS Biomaterials Science and Engineering*, **2021**, 7, 4474-4482	5.5	1
86	Poly(methyl methacrylate) Bone Cement Composite Can Be Refilled with Antibiotics after Implantation in Femur or Soft Tissue. *Journal of Functional Biomaterials*, **2021**, 12,	4.8	2
85	Antibiotic Refilling, Antimicrobial Activity, and Mechanical Strength of PMMA Bone Cement Composites Critically Depend on the Processing Technique. *ACS Biomaterials Science and Engineering*, **2020**, 6, 4024-4035	5.5	6
84	Affinity Effects on the Release of Non-Conventional Antifibrotics from Polymer Depots. *Pharmaceutics*, **2020**, 12,	6.4	2
83	Resveratrol Delivery from Implanted Cyclodextrin Polymers Provides Sustained Antioxidant Effect on Implanted Neural Probes. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	5
82	Combination Antibiotic Delivery in PMMA Provides Sustained Broad-Spectrum Antimicrobial Activity and Allows for Postimplantation Refilling. *Biomacromolecules*, **2020**, 21, 854-866	6.9	10
81	Periadventitial Delivery of Simvastatin-Loaded Microparticles Attenuate Venous Neointimal Hyperplasia Associated With Arteriovenous Fistula. *Journal of the American Heart Association*, **2020**, 9, e018418	6	8

80	Nonthermal Plasma Treatment Improves Uniformity and Adherence of Cyclodextrin-Based Coatings on Hydrophobic Polymer Substrates. *Coatings*, **2020**, 10, 1056	2.9	2
79	Engineering selective molecular tethers to enhance suboptimal drug properties. *Acta Biomaterialia*, **2020**, 115, 383-392	10.8	4
78	Elucidating the Structure-Function Relationship of Solvent and Cross-Linker on Affinity-Based Release from Cyclodextrin Hydrogels. *Gels*, **2020**, 6,	4.2	4
77	Repurposing biodegradable tissue engineering scaffolds for localized chemotherapeutic delivery. *Journal of Biomedical Materials Research - Part A*, **2020**, 108, 1144-1158	5.4	7
76	Local delivery polymer provides sustained antifungal activity of amphotericin B with reduced cytotoxicity. *Experimental Biology and Medicine*, **2019**, 244, 526-533	3.7	8
75	Microbiome: Our opponents or allies in healthcare and medicine. *Experimental Biology and Medicine* , **2019**, 244, 405-407	3.7	
74	Let There Be Light: Targeted Photodynamic Therapy Using High Aspect Ratio Plant Viral Nanoparticles. *Macromolecular Bioscience*, **2019**, 19, e1800407	5.5	9
73	Use of affinity allows anti-inflammatory and anti-microbial dual release that matches suture wound resolution. *Journal of Biomedical Materials Research - Part A*, **2019**, 107, 1434-1442	5.4	7
72	Cyclodextrin Polymer Preserves Sirolimus Activity and Local Persistence for Antifibrotic Delivery over the Time Course of Wound Healing. *Molecular Pharmaceutics*, **2019**, 16, 1766-1774	5.6	15
71	Localized and targeted delivery of NSAIDs for treatment of inflammation: A review. *Experimental Biology and Medicine*, **2019**, 244, 433-444	3.7	33
70	Serum biomolecules unable to compete with drug refilling into cyclodextrin polymers regardless of the form. *Journal of Materials Chemistry B*, **2019**, 7, 5320-5327	7.3	11
69	Molecular Imprinting of Cyclodextrin Supramolecular Hydrogels Improves Drug Loading and Delivery. *Macromolecular Bioscience*, **2019**, 19, e1800246	5.5	26
68	Surface sulfonamide modification of poly(N-isopropylacrylamide)-based block copolymer micelles to alter pH and temperature responsive properties for controlled intracellular uptake. *Journal of Biomedical Materials Research - Part A*, **2018**, 106, 1552-1560	5.4	5
67	Current Options and Emerging Biomaterials for Periprosthetic Joint Infection. *Current Rheumatology Reports*, **2018**, 20, 33	4.9	19
66	An Additive to PMMA Bone Cement Enables Postimplantation Drug Refilling, Broadens Range of Compatible Antibiotics, and Prolongs Antimicrobial Therapy. *Advanced Healthcare Materials*, **2018**, 7, e1800812	10.1	26
65	Injectable liquid polymers extend the delivery of corticosteroids for the treatment of osteoarthritis. *Journal of Controlled Release*, **2018**, 284, 112-121	11.7	20
64	Evaluation of an in vivo model for ventricular shunt infection: a pilot study using a novel antimicrobial-loaded polymer. *Journal of Neurosurgery*, **2018**, 131, 587-595	3.2	2
63	Localized Affinity-Based Delivery of Prinomastat for Cancer Treatment. *ACS Biomaterials Science and Engineering*, **2017**, 3, 238-242	5.5	5

62	Pseudopolyrotaxane Formation in the Synthesis of Cyclodextrin Polymers: Effects on Drug Delivery, Mechanics, and Cell Compatibility. *Bioconjugate Chemistry*, **2017**, 28, 1048-1058	6.3	9
61	Using Affinity To Provide Long-Term Delivery of Antiangiogenic Drugs in Cancer Therapy. *Molecular Pharmaceutics*, **2017**, 14, 899-907	5.6	16
60	Featured Article: Chemotherapeutic delivery using pH-responsive, affinity-based release. *Experimental Biology and Medicine*, **2017**, 242, 692-699	3.7	9
59	Emerging technologies for long-term antimicrobial device coatings: advantages and limitations. *Experimental Biology and Medicine*, **2017**, 242, 788-798	3.7	49
58	Affinity interactions drive post-implantation drug filling, even in the presence of bacterial biofilm. *Acta Biomaterialia*, **2017**, 57, 95-102	10.8	26
57	Infection prevention using affinity polymer-coated, synthetic meshes in a pig hernia model. *Journal of Surgical Research*, **2017**, 219, 5-10	2.5	16
56	Erythromycin Modification That Improves Its Acidic Stability while Optimizing It for Local Drug Delivery. *Antibiotics*, **2017**, 6,	4.9	26
55	Antibiotic-releasing microspheres prevent mesh infection in vivo. *Journal of Surgical Research*, **2016**, 206, 41-47	2.5	28
54	From Biocompatibility to Immune Engineering. *Experimental Biology and Medicine*, **2016**, 241, 889-90	3.7	2
53	Local release from affinity-based polymers increases urethral concentration of the stem cell chemokine CCL7 in rats. *Biomedical Materials (Bristol)*, **2016**, 11, 025022	3.5	12
52	Providing sustained transgene induction through affinity-based drug delivery. *Journal of Biomedical Materials Research - Part A*, **2016**, 104, 1135-42	5.4	8
51	High-throughput in vitro assay to evaluate the cytotoxicity of liberated platinum compounds for stimulating neural electrodes. *Journal of Neuroscience Methods*, **2016**, 273, 1-9	3	12
50	Photoinitiator-free synthesis of endothelial cell-adhesive and enzymatically degradable hydrogels. *Acta Biomaterialia*, **2015**, 13, 52-60	10.8	8
49	Thermomechanical Properties, Antibiotic Release, and Bioactivity of a Sterilized Cyclodextrin Drug Delivery System. *Journal of Materials Chemistry B*, **2014**, 2, 2764-2772	7.3	40
48	Enhancing the Mechanical Properties of Guanosine-Based Supramolecular Hydrogels with Guanosine-Containing Polymers. *Macromolecules*, **2014**, 47, 1810-1818	5.5	33
47	The role of CXCL12 and CCL7 chemokines in immune regulation, embryonic development, and tissue regeneration. *Cytokine*, **2014**, 69, 277-83	4	35
46	Bioconjugation Strategies: Lipids, Liposomes, Polymersomes, and Microbubbles **2014**, 185-202		3
45	Affinity-Based Drug Delivery **2014**, 429-452		5

44	A biodegradable thermoset polymer made by esterification of citric acid and glycerol. *Journal of Biomedical Materials Research - Part A*, **2014**, 102, 1467-77	5.4	83
43	Adjustable release of mitomycin C for inhibition of scar tissue formation after filtration surgery. *Experimental Eye Research*, **2013**, 116, 9-16	3.7	12
42	Using glycosaminoglycan/chemokine interactions for the long-term delivery of 5P12-RANTES in HIV prevention. *Molecular Pharmaceutics*, **2013**, 10, 3564-73	5.6	14
41	Peptide and protein-based inhibitors of HIV-1 co-receptors. *Experimental Biology and Medicine*, **2013**, 238, 442-9	3.7	9
40	Contractile Protein and Extracellular Matrix Secretion of Cell Monolayer Sheets Following Cyclic Stretch. *Cardiovascular Engineering and Technology*, **2012**, 3, 302-310	2.2	1
39	Toward potential supramolecular tissue engineering scaffolds based on guanosine derivatives. *Chemical Science*, **2012**, 3, 564-572	9.4	68
38	Electrospinning and Imaging. *Advanced Engineering Materials*, **2012**, 14, B266-B278	3.5	15
37	Microparticle delivery of Interleukin-7 to boost T-cell proliferation and survival. *Biotechnology and Bioengineering*, **2012**, 109, 1835-43	4.9	4
36	The role of nanomaterials in translational medicine. *ACS Nano*, **2011**, 5, 3419-24	16.7	61
35	Experimental studies and modeling of drug release from a tunable affinity-based drug delivery platform. *Annals of Biomedical Engineering*, **2011**, 39, 2466-75	4.7	41
34	Affinity-based drug delivery. *Macromolecular Bioscience*, **2011**, 11, 321-32	5.5	136
33	Multiplexing Interactions to Control Antibiotic Release from Cyclodextrin Hydrogels. *Macromolecular Bioscience*, **2011**, 11, n/a-n/a	5.5	3
32	Cytotoxic gold(I)-bearing dendrimers from alkyne precursors. *Dalton Transactions*, **2011**, 40, 8083-5	4.3	23
31	Multiplexing interactions to control antibiotic release from cyclodextrin hydrogels. *Macromolecular Bioscience*, **2011**, 11, 1544-52	5.5	9
30	Endothelial progenitor populations in differentiating embryonic stem cells. II. Drug selection and functional characterization. *Tissue Engineering - Part A*, **2010**, 16, 1065-74	3.9	3
29	Antibiotic-releasing mesh coating to reduce prosthetic sepsis: an in vivo study. *Journal of Surgical Research*, **2010**, 163, 337-43	2.5	58
28	Cell culture platform with mechanical conditioning and nondamaging cellular detachment. *Journal of Biomedical Materials Research - Part A*, **2010**, 93, 411-8	5.4	9
27	Cyclodextrin complexation for affinity-based antibiotic delivery. *Macromolecular Bioscience*, **2010**, 10, 82-90	5.5	81

26	Cyclodextrin-based device coatings for affinity-based release of antibiotics. *Biomaterials*, **2010**, 31, 2335-47	15.6	137
25	Endothelial progenitor populations in differentiating embryonic stem cells I: Identification and differentiation kinetics. *Tissue Engineering - Part A*, **2009**, 15, 3709-18	3.9	12
24	Endothelial stem cells and precursors for tissue engineering: cell source, differentiation, selection, and application. *Tissue Engineering - Part B: Reviews*, **2008**, 14, 133-47	7.9	81
23	Electrospinning: applications in drug delivery and tissue engineering. *Biomaterials*, **2008**, 29, 1989-2006	15.6	2436
22	Gold nanoparticles as a versatile platform for optimizing physicochemical parameters for targeted drug delivery. *Macromolecular Bioscience*, **2006**, 6, 506-16	5.5	186
21	Environmental cues to guide stem cell fate decision for tissue engineering applications. *Expert Opinion on Biological Therapy*, **2006**, 6, 847-66	5.4	64
20	Supramolecular assembly of cyclodextrin-based nanoparticles on solid surfaces for gene delivery. *Langmuir*, **2006**, 22, 8478-84	4	71
19	Differences in F36VMpl-based in vivo selection among large animal models. *Molecular Therapy*, **2004**, 10, 730-40	11.7	11
18	Biocompatibility and biofouling of MEMS drug delivery devices. *Biomaterials*, **2003**, 24, 1959-67	15.6	444
17	Comparative evaluation of the antitumor activity of antiangiogenic proteins delivered by gene transfer. *Proceedings of the National Academy of Sciences of the United States of America*, **2001**, 98, 4605-10	11.5	249
16	Growth factor and matrix molecules preserve cell function on thermally responsive culture surfaces. *Tissue Engineering*, **1999**, 5, 251-65		43
15	Maintenance of retinoid metabolism in human retinal pigment epithelium cell culture. *Experimental Eye Research*, **1999**, 69, 97-107	3.7	36
14	Growth factor release from thermally reversible tissue culture substrates. *Journal of Controlled Release*, **1998**, 55, 121-30	11.7	51
13	Novel thermally reversible hydrogel as detachable cell culture substrate. *Journal of Biomedical Materials Research Part B*, **1998**, 40, 631-9		87
12	Retinal pigmented epithelium cultures on thermally responsive polymer porous substrates. *Journal of Biomaterials Science, Polymer Edition*, **1998**, 9, 1241-53	3.5	44
11	Novel thermally reversible hydrogel as detachable cell culture substrate **1998**, 40, 631		6
10	Degradation of polydispersed poly(L-lactic acid) to modulate lactic acid release. *Biomaterials*, **1995**, 16, 441-7	15.6	95
9	Affinity-based delivery systems419-430		2

List of Publications

8	Cyclodextrin polymer coatings resist protein fouling, mammalian cell adhesion, and bacterial attachment	3
7	Engineering Selective Molecular Tethers to Enhance Suboptimal Drug Properties	1
6	Predicting Drug Interactions to Unassociated Biomedical Implants Using Machine Learning Techniques and Model Polymers	2
5	Leveraging Affinity Interactions to Prolong Drug Delivery of Protein Therapeutics	1
4	Using QSARs for predictions in drug delivery	5
3	Affinity-based polymers provide long-term immunotherapeutic drug delivery across particle size ranges optimal for macrophage targeting	4
2	Nonthermal plasma treatment of polymers modulates biological fouling but can cause material embrittlement	3
1	Using nonthermal plasma treatment to improve quality and durability of hydrophilic coatings on hydrophobic polymer surfaces	2