Ryan J Gilbert

List of Publications by Year
in descending order

62 papers	2,827 citations	218381 26 h-index	174990 52 g-index
63 all docs	63 docs citations	63 times ranked	3983 citing authors

#	Article	IF	Citations
1	Designing electrospun fiber platforms for efficient delivery of genetic material and genome editing tools. Advanced Drug Delivery Reviews, 2022, 183, 114161.	6.6	21
2	Multivariate analysis reveals topography dependent relationships amongst neurite morphological features from dorsal root ganglia neurons. Journal of Neural Engineering, 2022, , .	1.8	1
3	Conventional immunomarkers stain a fraction of astrocytes in vitro: A comparison of rat cortical and spinal cord astrocytes in naÃ¯ve and stimulated cultures. Journal of Neuroscience Research, 2021, 99, 806-826.	1.3	5
4	Acute Dose-Dependent Neuroprotective Effects of Poly(pro-17Î²-estradiol) in a Mouse Model of Spinal Contusion Injury. ACS Chemical Neuroscience, 2021, 12, 959-965.	1.7	2
5	Assessing the combination of magnetic field stimulation, iron oxide nanoparticles, and aligned electrospun fibers for promoting neurite outgrowth from dorsal root ganglia in vitro. Acta Biomaterialia, 2021, 131, 302-313.	4.1	29
6	Extracellular Matrixâ€Mimetic Hydrogels for Treating Neural Tissue Injury: A Focus on Fibrin, Hyaluronic Acid, and Elastinâ€Like Polypeptide Hydrogels. Advanced Healthcare Materials, 2021, 10, e2101329.	3.9	41
7	Electrospun Fiber Scaffolds for Engineering Glial Cell Behavior to Promote Neural Regeneration. Bioengineering, 2021, 8, 4.	1.6	26
8	Coating Topologically Complex Electrospun Fibers with Nanothin Silk Fibroin Enhances Neurite Outgrowth in Vitro. ACS Biomaterials Science and Engineering, 2020, 6, 1321-1332.	2.6	20
9	Biomaterial strategies for creating inÂvitro astrocyte cultures resembling inÂvivo astrocyte morphologies and phenotypes. Current Opinion in Biomedical Engineering, 2020, 14, 67-74.	1.8	7
10	TGFÎ²3 is neuroprotective and alleviates the neurotoxic response induced by aligned poly-l-lactic acid fibers on naÃ¯ve and activated primary astrocytes. Acta Biomaterialia, 2020, 117, 273-282.	4.1	24
11	Aligned Fingolimod-Releasing Electrospun Fibers Increase Dorsal Root Ganglia Neurite Extension and Decrease Schwann Cell Expression of Promyelinating Factors. Frontiers in Bioengineering and Biotechnology, 2020, 8, 937.	2.0	10
12	Bone Marrow-Derived and Elicited Peritoneal Macrophages Are Not Created Equal: The Questions Asked Dictate the Cell Type Used. Frontiers in Immunology, 2020, 11, 269.	2.2	23
13	Lactonic Sophorolipid Increases Surface Wettability of Poly-<scp>l</scp>-lactic Acid Electrospun Fibers. ACS Applied Bio Materials, 2019, 2, 3153-3158.	2.3	6
14	Vastly extended drug release from poly(pro-17Î²-estradiol) materials facilitates in vitro neurotrophism and neuroprotection. Nature Communications, 2019, 10, 4830.	5.8	22
15	Magnetic Composite Biomaterials for Neural Regeneration. Frontiers in Bioengineering and Biotechnology, 2019, 7, 179.	2.0	26
16	Exploring the effects of electrospun fiber surface nanotopography on neurite outgrowth and branching in neuron cultures. PLoS ONE, 2019, 14, e0211731.	1.1	30
17	Challenges of gene delivery to the central nervous system and the growing use of biomaterial vectors. Brain Research Bulletin, 2019, 150, 216-230.	1.4	37
18	Stabilized Interleukin-4-Loaded Poly(lactic-co-glycolic) Acid Films Shift Proinflammatory Macrophages toward a Regenerative Phenotype in Vitro. ACS Applied Bio Materials, 2019, 2, 1498-1508.	2.3	11

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19	Controlled Anchoring of Iron Oxide Nanoparticles on Polymeric Nanofibers: Easy Access to Core@Shell Organicâ€“Inorganic Nanocomposites for Magneto-Scaffolds. ACS Applied Materials & Interfaces, 2019, 11, 9519-9529.	4.0	29
20	Multi-modal characterization of polymeric gels to determine the influence of testing method on observed elastic modulus. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 92, 152-161.	1.5	14
21	Injectable, Magnetically Orienting Electrospun Fiber Conduits for Neuron Guidance. ACS Applied Materials & Interfaces, 2019, 11, 356-372.	4.0	79
22	The Effect of Electrospun Fiber Diameter on Astrocyte-Mediated Neurite Guidance and Protection. ACS Applied Bio Materials, 2019, 2, 104-117.	2.3	21
23	Poly-<scp>l</scp>-lactic acid-co-poly(pentadecalactone) Electrospun Fibers Result in Greater Neurite Outgrowth of Chick Dorsal Root Ganglia in Vitro Compared to Poly-<scp>l</scp>-lactic Acid Fibers. ACS Biomaterials Science and Engineering, 2018, 4, 1491-1497.	2.6	12
24	Specific Nanoporous Geometries on Anodized Alumina Surfaces Influence Astrocyte Adhesion and Glial Fibrillary Acidic Protein Immunoreactivity Levels. ACS Biomaterials Science and Engineering, 2018, 4, 128-141.	2.6	13
25	Biomaterial Approaches to Modulate Reactive Astroglial Response. Cells Tissues Organs, 2018, 205, 372-395.	1.3	34
26	Solvent Retention in Electrospun Fibers Affects Scaffold Mechanical Properties. Electrospinning, 2018, 2, 15-28.	1.6	24
27	Electrospun fiber surface nanotopography influences astrocyte-mediated neurite outgrowth. Biomedical Materials (Bristol), 2018, 13, 054101.	1.7	25
28	Advances in the use of electrospun fibers for the central nervous system. , 2018, , 377-398.		2
29	Sophorolipid Butyl Ester Diacetate Does Not Affect Macrophage Polarization but Enhances Astrocytic Glial Fibrillary Acidic Protein Expression at Micromolar Concentrations in Vitro. ACS Chemical Neuroscience, 2017, 8, 752-758.	1.7	6
30	Evaluation of procedures to quantify solvent retention in electrospun fibers and facilitate solvent removal. Fibers and Polymers, 2017, 18, 483-492.	1.1	20
31	The effect of engineered nanotopography of electrospun microfibers on fiber rigidity and macrophage cytokine production. Journal of Biomaterials Science, Polymer Edition, 2017, 28, 1303-1323.	1.9	19
32	Removal of retained electrospinning solvent prolongs drug release from electrospun PLLA fibers. Polymer, 2017, 123, 121-127.	1.8	17
33	Biomaterials for Local, Controlled Drug Delivery to the Injured Spinal Cord. Frontiers in Pharmacology, 2017, 8, 245.	1.6	78
34	Robust neurite extension following exogenous electrical stimulation within single walled carbon nanotube-composite hydrogels. Acta Biomaterialia, 2016, 39, 34-43.	4.1	115
35	Electrospun Fibers for Drug Delivery after Spinal Cord Injury and the Effects of Drug Incorporation on Fiber Properties. Cells Tissues Organs, 2016, 202, 116-135.	1.3	43
36	Electrospun Fibers for Spinal Cord Injury Research and Regeneration. Journal of Neurotrauma, 2016, 33, 1405-1415.	1.7	78

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37	Formulation of benzoxaborole drugs in PLLA: from materials preparation to in vitro release kinetics and cellular assays. Journal of Materials Chemistry B, 2016, 4, 257-272.	2.9	17
38	Astrocytes Increase ATP Exocytosis Mediated Calcium Signaling in Response to Microgroove Structures. Scientific Reports, 2015, 5, 7847.	1.6	45
39	The Effect of Surface Modification of Aligned Poly-L-Lactic Acid Electrospun Fibers on Fiber Degradation and Neurite Extension. PLoS ONE, 2015, 10, e0136780.	1.1	36
40	Cell infiltration into a 3D electrospun fiber and hydrogel hybrid scaffold implanted in the brain. Biomatter, 2015, 5, e1005527.	2.6	51
41	Nebulized solvent ablation of aligned PLLA fibers for the study of neurite response to anisotropic-to-isotropic fiber/film transition (AFFT) boundaries in astrocyteâ€“neuron co-cultures. Biomaterials, 2015, 46, 82-94.	5.7	21
42	Magnetic NGF-Releasing PLLA/Iron Oxide Nanoparticles Direct Extending Neurites and Preferentially Guide Neurites along Aligned Electrospun Microfibers. ACS Chemical Neuroscience, 2015, 6, 1781-1788.	1.7	48
43	Matrix compliance and the regulation of cytokinesis. Biology Open, 2015, 4, 885-892.	0.6	14
44	Reduced Astrocyte Viability at Physiological Temperatures from Magnetically Activated Iron Oxide Nanoparticles. Chemical Research in Toxicology, 2014, 27, 2023-2035.	1.7	13
45	An Injectable, Calcium Responsive Composite Hydrogel for the Treatment of Acute Spinal Cord Injury. ACS Applied Materials & Interfaces, 2014, 6, 1424-1438.	4.0	52
46	A biomaterial model of tumor stromal microenvironment promotes mesenchymal morphology but not epithelial to mesenchymal transition in epithelial cells. Acta Biomaterialia, 2014, 10, 4811-4821.	4.1	10
47	A protocol for rheological characterization of hydrogels for tissue engineering strategies. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2014, 102, 1063-1073.	1.6	277
48	Enhanced GLT-1 mediated glutamate uptake and migration of primary astrocytes directed by fibronectin-coated electrospun poly-l-lactic acid fibers. Biomaterials, 2014, 35, 1439-1449.	5.7	85
49	Design of hydrogel biomaterial interfaces for the injured spinal cord. Surface Innovations, 2014, 2, 26-46.	1.4	2
50	Automated Methods to Determine Electrospun Fiber Alignment and Diameter Using the Radon Transform. BioNanoScience, 2013, 3, 329-342.	1.5	19
51	Evaluation of Multifunctional Polysaccharide Hydrogels with Varying Stiffness for Bone Tissue Engineering. Tissue Engineering - Part A, 2013, 19, 2452-2463.	1.6	36
52	Engineered Nanotopography on Electrospun PLLA Microfibers Modifies RAW 264.7 Cell Response. ACS Applied Materials & Interfaces, 2013, 5, 10173-10184.	4.0	47
53	Biomaterial Design Considerations for Repairing the Injured Spinal Cord. Critical Reviews in Biomedical Engineering, 2011, 39, 125-180.	0.5	28
54	Fabrication and characterization of tunable polysaccharide hydrogel blends for neural repair. Acta Biomaterialia, 2011, 7, 1634-1643.	4.1	85

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55	Robust CNS regeneration after complete spinal cord transection using aligned poly-l-lactic acid microfibers. Biomaterials, 2011, 32, 6068-6079.	5.7	219
56	Electrospun fiber alignment using the radon transform. , 2011, , .		4
57	Controlled release of 6-aminonicotinamide from aligned, electrospun fibers alters astrocyte metabolism and dorsal root ganglia neurite outgrowth. Journal of Neural Engineering, 2011, 8, 046026.	1.8	35
58	Varying the diameter of aligned electrospun fibers alters neurite outgrowth and Schwann cell migration. Acta Biomaterialia, 2010, 6, 2970-2978.	4.1	266
59	A Rapid, Quantitative Method for Assessing Axonal Extension on Biomaterial Platforms. Tissue Engineering - Part C: Methods, 2010, 16, 167-172.	1.1	18
60	Creation of highly aligned electrospun poly-L-lactic acid fibers for nerve regeneration applications. Journal of Neural Engineering, 2009, 6, 016001.	1.8	254
61	Simple Agaroseâ^'Chitosan Gel Composite System for Enhanced Neuronal Growth in Three Dimensions. Biomacromolecules, 2009, 10, 2954-2959.	2.6	97
62	Agarose and methylcellulose hydrogel blends for nerve regeneration applications. Journal of Neural Engineering, 2008, 5, 221-231.	1.8	77