# Rebecca L Carrier

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8618545/publications.pdf

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|---|---|---|---|
| 57 papers | 4,212 citations | 172207 29 h-index | 161609 54 g-index |
| 58 all docs | 58 docs citations | 58 times ranked | 5659 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Cardiac tissue engineering: Cell seeding, cultivation parameters, and tissue construct characterization. , 1999, 64, 580-589. | | 473 |
| 2 | The utility of cyclodextrins for enhancing oral bioavailability. Journal of Controlled Release, 2007, 123, 78-99. | 4.8 | 464 |
| 3 | Interconnected Microphysiological Systems for Quantitative Biology and Pharmacology Studies. Scientific Reports, 2018, 8, 4530. | 1.6 | 341 |
| 4 | Perfusion Improves Tissue Architecture of Engineered Cardiac Muscle. Tissue Engineering, 2002, 8, 175-188. | 4.9 | 308 |
| 5 | Barrier Properties of Gastrointestinal Mucus to Nanoparticle Transport. Macromolecular Bioscience, 2010, 10, 1473-1483. | 2.1 | 244 |
| 6 | Gas exchange is essential for bioreactor cultivation of tissue engineered cartilage. , 1999, 63, 197-205. | | 202 |
| 7 | Impact of emulsion-based drug delivery systems on intestinal permeability and drug release kinetics. Journal of Controlled Release, 2010, 142, 22-30. | 4.8 | 161 |
| 8 | Integrated gut/liver microphysiological systems elucidates inflammatory interâ€tissue crosstalk. Biotechnology and Bioengineering, 2017, 114, 2648-2659. | 1.7 | 151 |
| 9 | Mucus models to evaluate the diffusion of drugs and particles. Advanced Drug Delivery Reviews, 2018, 124, 34-49. | 6.6 | 146 |
| 10 | Effects of oxygen on engineered cardiac muscle. Biotechnology and Bioengineering, 2002, 78, 617-625. | 1.7 | 130 |
| 11 | Hydrolysis in Pharmaceutical Formulations. Pharmaceutical Development and Technology, 2002, 7, 113-146. | 1.1 | 121 |
| 12 | Fully synthetic matrices for in vitro culture of primary human intestinal enteroids and endometrial organoids. Biomaterials, 2020, 254, 120125. | 5.7 | 106 |
| 13 | Size selectivity of intestinal mucus to diffusing particulates is dependent on surface chemistry and exposure to lipids. Journal of Drug Targeting, 2015, 23, 768-774. | 2.1 | 94 |
| 14 | Engineering the Mucus Barrier. Annual Review of Biomedical Engineering, 2018, 20, 197-220. | 5.7 | 92 |
| 15 | Influence of micro-well biomimetic topography on intestinal epithelial Caco-2 cell phenotype. Biomaterials, 2009, 30, 6825-6834. | 5.7 | 81 |
| 16 | Gastrointestinal contents in fasted state and post-lipid ingestion: In vivo measurements and in vitro models for studying oral drug delivery. Journal of Controlled Release, 2011, 151, 110-122. | 4.8 | 74 |
| 17 | Acute Exposure to Commonly Ingested Emulsifiers Alters Intestinal Mucus Structure and Transport Properties. Scientific Reports, 2018, 8, 10008. | 1.6 | 68 |
| 18 | Interactions of Microbicide Nanoparticles with a Simulated Vaginal Fluid. Molecular Pharmaceutics, 2012, 9, 3347-3356. | 2.3 | 65 |

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|---|---|---|---|
| 19 | Practical considerations in development of solid dosage forms that contain cyclodextrin. Journal of Pharmaceutical Sciences, 2007, 96, 1691-1707. | 1.6 | 58 |
| 20 | Synergic effects of crypt-like topography and ECM proteins on intestinal cell behavior in collagen based membranes. Biomaterials, 2010, 31, 7586-7598. | 5.7 | 56 |
| 21 | Primary Human Colonic Mucosal Barrier Crosstalk with Super Oxygen-Sensitive Faecalibacterium prausnitzii in Continuous Culture. Med, 2021, 2, 74-98.e9. | 2.2 | 55 |
| 22 | Altered Goblet Cell Differentiation and Surface Mucus Properties in Hirschsprung Disease. PLoS ONE, 2014, 9, e99944. | 1.1 | 50 |
| 23 | Decellularized retinal matrix: Natural platforms for human retinal progenitor cell culture. Acta Biomaterialia, 2016, 31, 61-70. | 4.1 | 48 |
| 24 | Food-associated stimuli enhance barrier properties of gastrointestinal mucus. Biomaterials, 2015, 54, 1-8. | 5.7 | 47 |
| 25 | Increased rate of chondrocyte aggregation in a wavy-walled bioreactor. Biotechnology and Bioengineering, 2004, 88, 767-777. | 1.7 | 40 |
| 26 | Lipid-associated oral delivery: Mechanisms and analysis of oral absorption enhancement. Journal of Controlled Release, 2016, 240, 544-560. | 4.8 | 39 |
| 27 | Characterization of colloidal structures during intestinal lipolysis using small-angle neutron scattering. Journal of Colloid and Interface Science, 2017, 499, 189-201. | 5.0 | 39 |
| 28 | Three dimensional human small intestine models for ADME-Tox studies. Drug Discovery Today, 2014, 19, 1587-1594. | 3.2 | 36 |
| 29 | Mucus Barriers to Microparticles and Microbes are Altered in Hirschsprung's Disease. Macromolecular Bioscience, 2015, 15, 712-718. | 2.1 | 34 |
| 30 | Spatially monitoring oxygen level in 3D microfabricated cell culture systems using optical oxygen sensing beads. Lab on A Chip, 2013, 13, 1586. | 3.1 | 32 |
| 31 | Approaches to Cell Delivery: Substrates and Scaffolds for Cell Therapy. Developments in Ophthalmology, 2014, 53, 143-154. | 0.1 | 32 |
| 32 | Crossâ€Linking and Degradation Properties of Plasma Enhanced Chemical Vapor Deposited Poly(2â€hydroxyethyl methacrylate). Macromolecular Rapid Communications, 2009, 30, 126-132. | 2.0 | 30 |
| 33 | Coculture of primary human colon monolayer with human gut bacteria. Nature Protocols, 2021, 16, 3874-3900. | 5.5 | 28 |
| 34 | Complex, multi-scale small intestinal topography replicated in cellular growth substrates fabricated via chemical vapor deposition of Parylene C. Biofabrication, 2016, 8, 035011. | 3.7 | 25 |
| 35 | A model predicting delivery of saquinavir in nanoparticles to human monocyte/macrophage (Mo/Mac) cells. Biotechnology and Bioengineering, 2008, 101, 1072-1082. | 1.7 | 24 |
| 36 | Predicting the Effect of Fed-State Intestinal Contents on Drug Dissolution. Pharmaceutical Research, 2010, 27, 2646-2656. | 1.7 | 20 |

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|---|---|---|---|
| 37 | Label-free Raman microspectral analysis for comparison of cellular uptake and distribution between nontargeted and EGFR-targeted biodegradable polymeric nanoparticles. Drug Delivery and Translational Research, 2013, 3, 575-586. | 3.0 | 20 |
| 38 | Biocompatibility of Plasma Enhanced Chemical Vapor Deposited Poly(2-hydroxyethyl methacrylate) Films for Biomimetic Replication of the Intestinal Basement Membrane. Biomacromolecules, 2010, 11, 1579-1584. | 2.6 | 16 |
| 39 | Effect of Ingested Lipids on Drug Dissolution and Release with Concurrent Digestion: A Modeling Approach. Pharmaceutical Research, 2013, 30, 3131-3144. | 1.7 | 13 |
| 40 | Interphotoreceptor matrix-poly(Ïµ-caprolactone) composite scaffolds for human photoreceptor differentiation. Journal of Tissue Engineering, 2014, 5, 204173141455413. | 2.3 | 13 |
| 41 | Drug Salts and Solubilization: Modeling the Influence of Cyclodextrins on Oral Absorption. Annals of Biomedical Engineering, 2011, 39, 455-468. | 1.3 | 12 |
| 42 | Intestinal mucus is capable of stabilizing supersaturation of poorly water-soluble drugs. Journal of Controlled Release, 2019, 296, 107-113. | 4.8 | 12 |
| 43 | Impact of Developmental Age, Necrotizing Enterocolitis Associated Stress, and Oral Therapeutic Intervention on Mucus Barrier Properties. Scientific Reports, 2020, 10, 6692. | 1.6 | 12 |
| 44 | Precise, Biomimetic Replication of the Multiscale Structure of Intestinal Basement Membrane Using Chemical Vapor Deposition. Tissue Engineering - Part A, 2013, 19, 649-656. | 1.6 | 11 |
| 45 | Nanomaterial induction of oxidative stress in lung epithelial cells and macrophages. Journal of Nanoparticle Research, 2014, 16, 1. | 0.8 | 11 |
| 46 | Photoinitiated chemical vapor deposition of cytocompatible poly(2â€hydroxyethyl methacrylate) films. Journal of Biomedical Materials Research - Part A, 2014, 102, 2375-2382. | 2.1 | 10 |
| 47 | Emulation of Colonic Oxygen Gradients in a Microdevice. SLAS Technology, 2018, 23, 164-171. | 1.0 | 10 |
| 48 | Materials and Microenvironments for Engineering the Intestinal Epithelium. Annals of Biomedical Engineering, 2020, 48, 1916-1940. | 1.3 | 10 |
| 49 | Interphotoreceptor matrix based biomaterial: Impact on human retinal progenitor cell attachment and differentiation. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2018, 106, 891-899. | 1.6 | 9 |
| 50 | Lipids alter microbial transport through intestinal mucus. PLoS ONE, 2018, 13, e0209151. | 1.1 | 9 |
| 51 | Discovery of low mucus adhesion surfaces. Acta Biomaterialia, 2013, 9, 5201-5207. | 4.1 | 8 |
| 52 | Modeling the human intestinal Mucin (MUC2) C-terminal cystine knot dimer. Journal of Molecular Modeling, 2011, 17, 2953-2963. | 0.8 | 6 |
| 53 | Glycosaminoglycans compositional analysis of Urodele axolotl (Ambystoma mexicanum) and Porcine Retina. Glycoconjugate Journal, 2019, 36, 165-174. | 1.4 | 6 |
| 54 | Model predicting impact of complexation with cyclodextrins on oral absorption. Biotechnology and Bioengineering, 2013, 110, 2536-2547. | 1.7 | 5 |

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|---|---|---|---|
| 55 | An in vitro intestinal model captures immunomodulatory properties of the microbiota in inflammation. Gut Microbes, 2022, 14, 2039002. | 4.3 | 3 |
| 56 | Reactive oxygen species limit intestinal mucosa-bacteria homeostasis in vitro. Scientific Reports, 2021, 11, 23727. | 1.6 | 2 |
| 57 | Synergistic Action of Diclofenac with Endotoxin-Mediated Inflammation Exacerbates Intestinal Injury in Vitro. ACS Infectious Diseases, 2021, 7, 838-848. | 1.8 | 0 |