## Shayn M Peirce

List of Publications by Year in descending order

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146 papers

5,149 citations

39 h-index 66 g-index

153 all docs

153 docs citations

153 times ranked 7498 citing authors

| #  | Article  | IF          | CITATIONS |
|----|--|-------------|-----------|
| 1  | Vivarium: an interface and engine for integrative multiscale modeling in computational biology. Bioinformatics, 2022, 38, 1972-1979.   | 4.1         | 12        |
| 2  | Photoacoustic microscopy of vascular adaptation and tissue oxygen metabolism during cutaneous wound healing. Biomedical Optics Express, 2022, 13, 2695.  | 2.9         | 4         |
| 3  | Linking arterial stiffness to microvascular remodeling. , 2022, , 195-209.   |             | 0         |
| 4  | Biophysical quantification of reorganization dynamics of human pancreatic islets during co-culture with adipose-derived stem cells. Analyst, The, 2022, 147, 2731-2738.                          | 3.5         | 2         |
| 5  | Multiâ€scale Computational Model of Endothelial Cellâ€Pericyte Coupling in Idiopathic Pulmonary Fibrosis. FASEB Journal, 2022, 36, .   | 0.5         | O         |
| 6  | In silico optimization of heparin microislands in microporous annealed particle hydrogel for endothelial cell migration. Acta Biomaterialia, 2022, 148, 171-180.                                 | 8.3         | 2         |
| 7  | Computational Models Provide Insight into In Vivo Studies and Reveal the Complex Role of Fibrosis in mdx Muscle Regeneration. Annals of Biomedical Engineering, 2021, 49, 536-547.               | 2.5         | 6         |
| 8  | Biomimetic Models of the Microcirculation for Scientific Discovery and Therapeutic Testing., 2021,, 1-23.  |             | 0         |
| 9  | Clinical perspectives on the microcirculation. Microcirculation, 2021, 28, e12688.   | 1.8         | 0         |
| 10 | Agent-based model provides insight into the mechanisms behind failed regeneration following volumetric muscle loss injury. PLoS Computational Biology, 2021, 17, e1008937.                       | 3.2         | 9         |
| 11 | Mathematical Model Predicts that Acceleration of Diabetic Wound Healing is Dependent on Spatial Distribution of VEGF-A mRNA (AZD8601). Cellular and Molecular Bioengineering, 2021, 14, 321-338. | 2.1         | 5         |
| 12 | Extracellular matrix remodeling associated with bleomycin-induced lung injury supports pericyte-to-myofibroblast transition. Matrix Biology Plus, 2021, 10, 100056.                              | <b>3.</b> 5 | 12        |
| 13 | Biomimetic Models of the Microcirculation for Scientific Discovery and Therapeutic Testing.<br>Reference Series in Biomedical Engineering, 2021, , 321-342.                                      | 0.1         | 0         |
| 14 | In vivo imaging of hemodynamic redistribution and arteriogenesis across microvascular network. Microcirculation, 2020, 27, e12598.   | 1.8         | 12        |
| 15 | Myh $11+$ microvascular mural cells and derived mesenchymal stem cells promote retinal fibrosis. Scientific Reports, 2020, 10, 15808.  | 3.3         | 9         |
| 16 | Oxygen-Sensing Biomaterial Construct for Clinical Monitoring of Wound Healing. Advances in Skin and Wound Care, 2020, 33, 428-436.   | 1.0         | 6         |
| 17 | Pericyte Bridges in Homeostasis and Hyperglycemia. Diabetes, 2020, 69, 1503-1517.  | 0.6         | 25        |
| 18 | Modelâ€Based Analysis Reveals a Sustained and Doseâ€Dependent Acceleration of Wound Healing by VEGFâ€A mRNA (AZD8601). CPT: Pharmacometrics and Systems Pharmacology, 2020, 9, 384-394.          | 2.5         | 4         |

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| 19 | Multi-scale models of lung fibrosis. Matrix Biology, 2020, 91-92, 35-50.   | 3.6  | 15        |
| 20 | REAVER: A program for improved analysis of highâ€resolution vascular network images.<br>Microcirculation, 2020, 27, e12618.  | 1.8  | 29        |
| 21 | Improved Difluoroboron βâ€Diketonate Poly(lactic acid) Nanoparticles for Monitoring Wound Oxygenation. FASEB Journal, 2020, 34, 1-1.   | 0.5  | 0         |
| 22 | CIRCOAST: a statistical hypothesis test for cellular colocalization with network structures. Bioinformatics, 2019, 35, 506-514.  | 4.1  | 4         |
| 23 | Multiscale models of infection. Current Opinion in Biomedical Engineering, 2019, 11, 102-108.  | 3.4  | 6         |
| 24 | Spatial scaling in multiscale models: methods for coupling agent-based and finite-element models of wound healing. Biomechanics and Modeling in Mechanobiology, 2019, 18, 1297-1309. | 2.8  | 21        |
| 25 | Data-Driven Model Validation Across Dimensions. Bulletin of Mathematical Biology, 2019, 81, 1853-1866.   | 1.9  | 7         |
| 26 | Perivascular cell-specific knockout of the stem cell pluripotency gene Oct4 inhibits angiogenesis. Nature Communications, 2019, 10, 967.   | 12.8 | 27        |
| 27 | Myh11 Lineage Corneal Endothelial Cells and ASCs Populate Corneal Endothelium. , 2019, 60, 5095.   |      | 8         |
| 28 | Multiscale computational models of cancer. Current Opinion in Biomedical Engineering, 2019, 11, 137-144.   | 3.4  | 14        |
| 29 | Multiscale Coupling of an Agent-Based Model of Tissue Fibrosis and a Logic-Based Model of Intracellular Signaling. Frontiers in Physiology, 2019, 10, 1481.                          | 2.8  | 29        |
| 30 | Vascular Expression of Hemoglobin Alpha in Antarctic Icefish Supports Iron Limitation as Novel Evolutionary Driver. Frontiers in Physiology, 2019, 10, 1389.                         | 2.8  | 6         |
| 31 | Methods to label, image, and analyze the complex structural architectures of microvascular networks. Microcirculation, 2019, 26, e12520.   | 1.8  | 51        |
| 32 | Identification of <scp>ILK</scp> as a critical regulator of <scp>VEGFR</scp> 3 signalling and lymphatic vascular growth. EMBO Journal, 2019, 38, .                                   | 7.8  | 34        |
| 33 | Using Bioprinting to Tissue Engineer Microvascularized Constructs for Skeletal Muscle Repair. FASEB Journal, 2019, 33, lb449.  | 0.5  | 2         |
| 34 | REAVER: An Improved Image Analysis Pipeline for Quantifying Microvascular Networks. FASEB Journal, 2019, 33, .   | 0.5  | 0         |
| 35 | Mechanotransduction in Blood and Lymphatic Vascular Development and Disease. Advances in Pharmacology, 2018, 81, 155-208.  | 2.0  | 10        |
| 36 | Metallothionein I as a direct link between therapeutic hematopoietic stem/progenitor cells and cerebral protection in stroke. FASEB Journal, 2018, 32, 2381-2394.                    | 0.5  | 9         |

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| 37 | Effect of Adiposeâ€Derived Stem Cells on Head and Neck Squamous Cell Carcinoma. Otolaryngology -<br>Head and Neck Surgery, 2018, 158, 882-888.   | 1.9 | 10        |
| 38 | Fibroblasts: Diverse Cells Critical to Biomaterials Integration. ACS Biomaterials Science and Engineering, 2018, 4, 1223-1232.   | 5.2 | 41        |
| 39 | Myeloid P2Y2 receptor promotes acute inflammation but is dispensable for chronic high-fat diet-induced metabolic dysfunction. Purinergic Signalling, 2018, 14, 19-26.                                      | 2.2 | 11        |
| 40 | Modified VEGF-A mRNA induces sustained multifaceted microvascular response and accelerates diabetic wound healing. Scientific Reports, 2018, 8, 17509.   | 3.3 | 80        |
| 41 | Induction of microvascular network growth in the mouse mesentery. Microcirculation, 2018, 25, e12502.  | 1.8 | 7         |
| 42 | <i>Klf4</i> has an unexpected protective role in perivascular cells within the microvasculature.<br>American Journal of Physiology - Heart and Circulatory Physiology, 2018, 315, H402-H414.               | 3.2 | 17        |
| 43 | Agent-based model illustrates the role of the microenvironment in regeneration in healthy and <i>mdx</i> skeletal muscle. Journal of Applied Physiology, 2018, 125, 1424-1439.                             | 2.5 | 31        |
| 44 | Design and implementation of a student-taught course on research in regenerative medicine. American Journal of Physiology - Advances in Physiology Education, 2018, 42, 360-367.                           | 1.6 | 4         |
| 45 | Tissue Oxygenation within Diabetic Wounds can be Monitored Using Difluoroboron β– Diketonate<br>Polylactide Nanoparticles. FASEB Journal, 2018, 32, 577.2.   | 0.5 | 0         |
| 46 | Agentâ∈Based Model of Pericyte Response to Plateletâ∈Derived Growth Factorâ∈BB from Sprouting Endothelial Cells in the Developing Mouse Retina. FASEB Journal, 2018, 32, 708.2.                            | 0.5 | 0         |
| 47 | Agent Based Model of Endothelial Cell and Pericyte Interactions During Angiogenesis in the Germinal Matrix. FASEB Journal, 2018, 32, 573.1.  | 0.5 | 0         |
| 48 | Advanced Imaging Techniques for Investigation of Acellular Dermal Matrix Biointegration. Plastic and Reconstructive Surgery, 2017, 139, 395-405.   | 1.4 | 17        |
| 49 | Non-classical monocytes are biased progenitors of wound healing macrophages during soft tissue injury. Scientific Reports, 2017, 7, 447.   | 3.3 | 176       |
| 50 | An engineering design approach to systems biology. Integrative Biology (United Kingdom), 2017, 9, 574-583.   | 1.3 | 22        |
| 51 | Effects of Collagenase Digestion and Stromal Vascular Fraction Supplementation on Volume Retention of Fat Grafts. Annals of Plastic Surgery, 2017, 78, S335-S342.  | 0.9 | 13        |
| 52 | Microfluidics Technologies and Approaches for Studying the Microcirculation. Microcirculation, 2017, 24, e12377.   | 1.8 | 3         |
| 53 | Arteriogenesis in murine adipose tissue is contingent on CD68 <sup>+</sup> /CD206 <sup>+</sup> macrophages. Microcirculation, 2017, 24, e12341.  | 1.8 | 5         |
| 54 | Muscle-derived extracellular superoxide dismutase inhibits endothelial activation and protects against multiple organ dysfunction syndrome in mice. Free Radical Biology and Medicine, 2017, 113, 212-223. | 2.9 | 20        |

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| 55 | Dynamic, heterogeneous endothelial Tie2 expression and capillary blood flow during microvascular remodeling. Scientific Reports, 2017, 7, 9049.  | 3.3                | 24                    |
| 56 | Deformability-based microfluidic separation of pancreatic islets from exocrine acinar tissue for transplant applications. Lab on A Chip, 2017, 17, 3682-3691.  | 6.0                | 12                    |
| 57 | Agentâ€based computational model of retinal angiogenesis simulates microvascular network morphology as a function of pericyte coverage. Microcirculation, 2017, 24, e12393.                                      | 1.8                | 34                    |
| 58 | In Silico and In Vivo Experiments Reveal M-CSF Injections Accelerate Regeneration Following Muscle Laceration. Annals of Biomedical Engineering, 2017, 45, 747-760.  | 2.5                | 27                    |
| 59 | Spatial and age-related changes in the microstructure of dystrophic and healthy diaphragms. PLoS ONE, 2017, 12, e0183853.  | 2.5                | 12                    |
| 60 | Flt-1 (VEGFR-1) coordinates discrete stages of blood vessel formation. Cardiovascular Research, 2016, 111, 84-93.  | 3.8                | 56                    |
| 61 | Preclinical Assessment of Safety and Efficacy of Fluorescent Dye for Detecting Dermal Injuries (the) Tj ETQq1 1 (1493-1497.  | ).784314<br>1.6    | rgBT /Overloc<br>0    |
| 62 | Macrophage Recruitment and Polarization During Collateral Vessel Remodeling in Murine Adipose Tissue. Microcirculation, 2016, 23, 75-87.   | 1.8                | 20                    |
| 63 | Modulating Vascular Hemodynamics With an Alpha Globin Mimetic Peptide (HbαX). Hypertension, 2016, 68, 1494-1503.   | 2.7                | 26                    |
| 64 | "Small Blood Vessels: Big Health Problems?â€. Scientific Recommendations of the National Institutes of Health Workshop. Journal of the American Heart Association, 2016, 5, .                                    | 3.7                | 67                    |
| 65 | Oxygen Sensing Difluoroboron $\hat{l}^2$ -Diketonate Polylactide Materials with Tunable Dynamic Ranges for Wound Imaging. ACS Sensors, 2016, 1, 1366-1373.   | 7.8                | 104                   |
| 66 | Computational Modeling of Muscle Regeneration and Adaptation to Advance Muscle Tissue Regeneration Strategies. Cells Tissues Organs, 2016, 202, 250-266.   | 2.3                | 24                    |
| 67 | Interstitial flow differentially increases patient-derived glioblastoma stem cell invasion <i>via</i> CXCR4, CXCL12, and CD44-mediated mechanisms. Integrative Biology (United) Tj ETQq1 1 0.                    | 78 <b>43</b> 14 rg | gBTd <b>©</b> verlock |
| 68 | Macrophages: An Inflammatory Link Between Angiogenesis and Lymphangiogenesis. Microcirculation, 2016, 23, 95-121.  | 1.8                | 240                   |
| 69 | Paradoxical Adipose Hyperplasia and Cellular Effects After Cryolipolysis: A Case Report. Aesthetic<br>Surgery Journal, 2016, 36, NP6-NP13.   | 1.6                | 20                    |
| 70 | Computational Network Model Prediction of Hemodynamic Alterations Due to Arteriolar Rarefaction and Estimation of Skeletal Muscle Perfusion in Peripheral Arterial Disease. Microcirculation, 2015, 22, 360-369. | 1.8                | 15                    |
| 71 | Differential Effects of Processing Time and Duration of Collagenase Digestion on Human and Murine Fat Grafts. Plastic and Reconstructive Surgery, 2015, 136, 189e-199e.  | 1.4                | 21                    |
| 72 | Agent-based computational model investigates muscle-specific responses to disuse-induced atrophy. Journal of Applied Physiology, 2015, 118, 1299-1309.   | 2.5                | 28                    |

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| 73 | Agent-based model of angiogenesis simulates capillary sprout initiation in multicellular networks. Integrative Biology (United Kingdom), 2015, 7, 987-997.  | 1.3  | 44        |
| 74 | Applications of computational models to better understand microvascular remodelling: a focus on biomechanical integration across scales. Interface Focus, 2015, 5, 20140077.  | 3.0  | 12        |
| 75 | Multiscale models of skeletal muscle reveal the complex effects of muscular dystrophy on tissue mechanics and damage susceptibility. Interface Focus, 2015, 5, 20140080.  | 3.0  | 64        |
| 76 | Pannexin 1 is required for full activation of insulin-stimulated glucose uptake in adipocytes.<br>Molecular Metabolism, 2015, 4, 610-618.   | 6.5  | 54        |
| 77 | Adipose-Derived Stem Cells From Diabetic Mice Show Impaired Vascular Stabilization in a Murine Model of Diabetic Retinopathy. Stem Cells Translational Medicine, 2015, 4, 459-467.  | 3.3  | 47        |
| 78 | Human adipose-derived stromal/stem cells demonstrate short-lived persistence after implantation in both an immunocompetent and an immunocompromised murine model. Stem Cell Research and Therapy, 2014, 5, 142.                                 | 5.5  | 46        |
| 79 | Targeting Pericytes for Angiogenic Therapies. Microcirculation, 2014, 21, 345-357.  | 1.8  | 81        |
| 80 | Monocytes Are Recruited From Venules During Arteriogenesis in the Murine Spinotrapezius Ligation Model. Arteriosclerosis, Thrombosis, and Vascular Biology, 2014, 34, 2012-2022.  | 2.4  | 27        |
| 81 | Interval vs Massed Training: How Best Do We Teach Surgery?. Otolaryngology - Head and Neck Surgery, 2014, 150, 61-67.   | 1.9  | 8         |
| 82 | Extracellular Superoxide Dismutase Ameliorates Skeletal Muscle Abnormalities, Cachexia, and Exercise Intolerance in Mice with Congestive Heart Failure. Circulation: Heart Failure, 2014, 7, 519-530.   | 3.9  | 54        |
| 83 | Engineering in vivo gradients of sphingosine-1-phosphate receptor ligands for localized microvascular remodeling and inflammatory cell positioning. Acta Biomaterialia, 2014, 10, 4704-4714.  | 8.3  | 32        |
| 84 | Multiscale Computational Modeling in Vascular Biology: From Molecular Mechanisms to Tissue-Level Structure and Function. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2013, , 209-240.                                       | 1.0  | 7         |
| 85 | Multiscale Computational Models of Complex Biological Systems. Annual Review of Biomedical Engineering, 2013, 15, 137-154.  | 12.3 | 186       |
| 86 | Sphingosine 1-phosphate receptor 3 regulates recruitment of anti-inflammatory monocytes to microvessels during implant arteriogenesis. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 13785-13790. | 7.1  | 133       |
| 87 | Murine Spinotrapezius Model to Assess the Impact of Arteriolar Ligation on Microvascular Function and Remodeling. Journal of Visualized Experiments, 2013, , e50218.  | 0.3  | 2         |
| 88 | Pericytes Derived from Adipose-Derived Stem Cells Protect against Retinal Vasculopathy. PLoS ONE, 2013, 8, e65691.  | 2.5  | 132       |
| 89 | Agent-based Models, Discrete Models and Mathematics. , 2013, , 14-17.   |      | 1         |
| 90 | Monocyte Recruitment during Microvascular Arteriogenesis is Induced by Altered Flow and Influenced by Proximity of Venules to Collateral Arterioles. FASEB Journal, 2013, 27, 685.8.  | 0.5  | 0         |

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| 91  | Development and Validation of a Novel Ear Simulator to Teach Pneumatic Otoscopy. Simulation in Healthcare, 2012, 7, 22-26.   | 1.2 | 35        |
| 92  | Integration of experimental and computational approaches to sprouting angiogenesis. Current Opinion in Hematology, 2012, 19, 184-191.  | 2.5 | 30        |
| 93  | Rat Mesentery Exteriorization: A Model for Investigating the Cellular Dynamics Involved in Angiogenesis. Journal of Visualized Experiments, 2012, , e3954.   | 0.3 | 11        |
| 94  | Attenuation of EphrinB2 Reverse Signaling Decreases Vascularized Area and Preretinal Vascular Tuft Formation in the Murine Model of Oxygen-Induced Retinopathy., 2012, 53, 5462.   |     | 7         |
| 95  | Exogenous Thrombin Delivery Promotes Collateral Capillary Arterialization and Tissue Reperfusion in the Murine Spinotrapezius Muscle Ischemia Model. Microcirculation, 2012, 19, 143-154.  | 1.8 | 5         |
| 96  | Selective Activation of Sphingosine 1-Phosphate Receptors 1 and 3 Promotes Local Microvascular Network Growth. Tissue Engineering - Part A, 2011, 17, 617-629.   | 3.1 | 37        |
| 97  | Computational Modeling of Interacting VEGF and Soluble VEGF Receptor Concentration Gradients. Frontiers in Physiology, 2011, 2, 62.  | 2.8 | 46        |
| 98  | Toward a Multi-Scale Computational Model of Arterial Adaptation in Hypertension: Verification of a Multi-Cell Agent Based Model. Frontiers in Physiology, 2011, 2, 20.   | 2.8 | 36        |
| 99  | A New Method for <i>In Vivo</i> Visualization of Vessel Remodeling Using a Nearâ€Infrared Dye.<br>Microcirculation, 2011, 18, 163-171.   | 1.8 | 7         |
| 100 | Mathematical and Computational Models in Cancer. , 2011, , 113-126.  |     | 1         |
| 101 | Systems Analysis of Small Signaling Modules Relevant to Eight Human Diseases. Annals of Biomedical Engineering, 2011, 39, 621-635.   | 2.5 | 10        |
| 102 | Ensuring Congruency in Multiscale Modeling: Towards Linking Agent Based and Continuum Biomechanical Models of Arterial Adaptation. Annals of Biomedical Engineering, 2011, 39, 2669-2682.  | 2.5 | 36        |
| 103 | Hypoxic culture and in vivo inflammatory environments affect the assumption of pericyte characteristics by human adipose and bone marrow progenitor cells. American Journal of Physiology - Cell Physiology, 2011, 301, C1378-C1388. | 4.6 | 23        |
| 104 | Rapid Analysis of Vessel Elements (RAVE): A Tool for Studying Physiologic, Pathologic and Tumor Angiogenesis. PLoS ONE, 2011, 6, e20807.   | 2.5 | 49        |
| 105 | Effects of Exogenous Thrombin on Cell Recruitment and Collateral Arteriole Development in the Mouse Spinotrapezius. FASEB Journal, 2011, 25, lb440.  | 0.5 | 0         |
| 106 | Variations in Tip Cell Proximity and sFlt1 Gradients Alter VEGF Receptor Activation in a Computational Model. FASEB Journal, 2011, 25, 1091.11.  | 0.5 | 0         |
| 107 | Collateral Expansion and Capillary Arterialization in the Spinotrapezius of C57BL/6, BALB/c and NG2 Knockout Mice. FASEB Journal, 2011, 25, 1092.13.   | 0.5 | 0         |
| 108 | Collateral Capillary Arterialization following Arteriolar Ligation in Murine Skeletal Muscle. Microcirculation, 2010, 17, 333-47.  | 1.8 | 67        |

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| 109 | Inhibition of Canonical Wnt Signaling Increases Microvascular Hemorrhaging and Venular Remodeling in Adult Rats. Microcirculation, 2010, 17, no-no.  | 1.8 | 17        |
| 110 | High-level Modeling of Biological Networks. , 2010, , 225-247.   |     | 0         |
| 111 | Human Adipose-Derived Stromal Cells Accelerate Diabetic Wound Healing: Impact of Cell Formulation and Delivery. Tissue Engineering - Part A, 2010, 16, 1595-1606.                                | 3.1 | 176       |
| 112 | Chronic whole-body hypoxia induces intussusceptive angiogenesis and microvascular remodeling in the mouse retina. Microvascular Research, 2010, 79, 93-101.                                      | 2.5 | 38        |
| 113 | FTY720 Promotes Local Microvascular Network Formation and Regeneration of Cranial Bone Defects.<br>Tissue Engineering - Part A, 2010, 16, 1801-1809.   | 3.1 | 53        |
| 114 | Mouse models of variability in vascular remodeling: collateral networks in spinotrapezius muscle ischemia. FASEB Journal, 2010, 24, 774.25.  | 0.5 | 0         |
| 115 | Interâ€individual Differences in Arteriolar Tree Architecture in the Mouse Spinotrapezius May Suggest a<br>Genetic Basis for Susceptibility to Ischemic Insult. FASEB Journal, 2010, 24, 973.15. | 0.5 | 0         |
| 116 | Agent-Based Model of Therapeutic Adipose-Derived Stromal Cell Trafficking during Ischemia Predicts Ability To Roll on P-Selectin. PLoS Computational Biology, 2009, 5, e1000294.                 | 3.2 | 72        |
| 117 | Construct validity of a simulator for myringotomy with ventilation tube insertion. Otolaryngology -<br>Head and Neck Surgery, 2009, 141, 603-608.  | 1.9 | 36        |
| 118 | Microvascular response to ischemia in mouse spinotrapezius muscle: lessons for human vascular variability. FASEB Journal, 2009, 23, 304.3.   | 0.5 | 0         |
| 119 | Combining experiments with agentâ€based modeling to study microvascular growth at the multiâ€cell level. FASEB Journal, 2009, 23, 304.1.   | 0.5 | 0         |
| 120 | Microvascular NG2 expression patterns in response to aging, ischemic injury, and disease in mouse spinotrapezius muscle. FASEB Journal, 2009, 23, 592.20.  | 0.5 | 0         |
| 121 | Arteriolar Remodeling Following Ischemic Injury Extends from Capillary to Large Arteriole in the Microcirculation. Microcirculation, 2008, 15, 389-404.  | 1.8 | 33        |
| 122 | Computational and Mathematical Modeling of Angiogenesis. Microcirculation, 2008, 15, 739-751.  | 1.8 | 147       |
| 123 | IFATS Collection: The Role of Human Adipose-Derived Stromal Cells in Inflammatory Microvascular Remodeling and Evidence of a Perivascular Phenotype. Stem Cells, 2008, 26, 2682-2690.            | 3.2 | 114       |
| 124 | Characterizing emergent properties of immunological systems with multi-cellular rule-based computational modeling. Trends in Immunology, 2008, 29, 589-599.                                      | 6.8 | 94        |
| 125 | Functional Binding of Human Adipose-Derived Stromal Cells. Annals of Plastic Surgery, 2008, 60, 437-444.   | 0.9 | 18        |
| 126 | Topical Poloxamer-188 Improves Blood Flow Following Thermal Injury in Rat Mesenteric Microvasculature. Annals of Plastic Surgery, 2008, 60, 584-588.   | 0.9 | 11        |

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| 127 | Combining experiments with multi-cell agent-based modeling to study biological tissue patterning. Briefings in Bioinformatics, 2007, 8, 245-257.  | 6.5 | 135       |
| 128 | Agentâ€based modeling of multicell morphogenic processes during development. Birth Defects Research Part C: Embryo Today Reviews, 2007, 81, 344-353.  | 3.6 | 46        |
| 129 | Multiscale computational analysis of Xenopus laevis morphogenesis reveals key insights of systems-level behavior. BMC Systems Biology, 2007, 1, 46.   | 3.0 | 27        |
| 130 | EphB4 Expression Along Adult Rat Microvascular Networks: EphB4 Is More Than a Venous Specific Marker. Microcirculation, 2007, 14, 253-267.  | 1.8 | 28        |
| 131 | Multi-cell Agent-based Simulation of the Microvasculature to Study the Dynamics of Circulating Inflammatory Cell Trafficking. Annals of Biomedical Engineering, 2007, 35, 916-936.  | 2.5 | 108       |
| 132 | Multiscale biosystems integration: Coupling intracellular network analysis with tissue-patterning simulations. IBM Journal of Research and Development, 2006, 50, 601-615.  | 3.1 | 17        |
| 133 | Perivascular Cells Along Venules Upregulate NG2 Expression During Microvascular Remodeling.<br>Microcirculation, 2006, 13, 261-273.   | 1.8 | 70        |
| 134 | NG2 proteoglycan expression is functionally involved in microvascular remodeling. FASEB Journal, 2006, 20, A712.  | 0.5 | 0         |
| 135 | Characterization of EphB4 expression in adult mesenteric microvascular networks. FASEB Journal, 2006, 20, A712.   | 0.5 | 0         |
| 136 | Letter to the Editor. Microcirculation, 2005, 12, 539-541.  | 1.8 | 10        |
| 137 | Differential Arterial/Venous Expression of NG2 Proteoglycan in Perivascular Cells Along Microvessels: Identifying a Venuleâ€Specific Phenotype. Microcirculation, 2005, 12, 151-160.  | 1.8 | 119       |
| 138 | Spatial and temporal control of angiogenesis and arterialization using focal applications of VEGF <sub>164</sub> and Ang-1*. American Journal of Physiology - Heart and Circulatory Physiology, 2004, 286, H918-H925.   | 3.2 | 63        |
| 139 | Multicellular simulation predicts microvascular patterning and in silico tissue assembly. FASEB Journal, 2004, 18, 731-733.   | 0.5 | 149       |
|     |   |     | No.       |
| 140 | Multicellular computer simulation of morphogenesis: blastocoel roof thinning and matrix assembly in Xenopus laevis. Developmental Biology, 2004, 271, 210-222.  | 2.0 | 59        |
| 140 | Multicellular computer simulation of morphogenesis: blastocoel roof thinning and matrix assembly in Xenopus laevis. Developmental Biology, 2004, 271, 210-222.  Computational automata simulation of blastocoel roof thinning in the Xenopu laevis embryo., 2003,,. | 2.0 | 59        |
|     | in Xenopus laevis. Developmental Biology, 2004, 271, 210-222.   | 2.0 |           |
| 141 | in Xenopus laevis. Developmental Biology, 2004, 271, 210-222.  Computational automata simulation of blastocoel roof thinning in the Xenopu laevis embryo., 2003,,  Microvascular Remodeling: A Complex Continuum Spanning Angiogenesis to Arteriogenesis.           |     | 0         |

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|-----|--|-----|-----------|
| 145 | Selective A <sub>2A</sub> adenosine receptor activation reduces skin pressure ulcer formation and inflammation. American Journal of Physiology - Heart and Circulatory Physiology, 2001, 281, H67-H74. | 3.2 | 65        |
| 146 | Ischemiaâ€reperfusion injury in chronic pressure ulcer formation: A skin model in the rat. Wound Repair and Regeneration, 2000, 8, 68-76.  | 3.0 | 244       |