

# Cheri X Deng

## List of Publications by Year in descending order

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Version: 2024-02-01

55  
papers

2,548  
citations

218677

26  
h-index

197818

49  
g-index

56  
all docs

56  
docs citations

56  
times ranked

2939  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Ultrasound-induced cell membrane porosity. <i>Ultrasound in Medicine and Biology</i> , 2004, 30, 519-526.   | 1.5  | 306       |
| 2  | Ultrasound modulates ion channel currents. <i>Scientific Reports</i> , 2016, 6, 24170.  | 3.3  | 241       |
| 3  | Spatiotemporally controlled single cell sonoporation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 16486-16491.                                | 7.1  | 197       |
| 4  | Radiation-force technique to monitor lesions during ultrasonic therapy. <i>Ultrasound in Medicine and Biology</i> , 2003, 29, 1593-1605.  | 1.5  | 167       |
| 5  | Mechanisms of microbubble-facilitated sonoporation for drug and gene delivery. <i>Therapeutic Delivery</i> , 2014, 5, 467-486.  | 2.2  | 133       |
| 6  | Rapid Generation of Multiplexed Cell Cocultures Using Acoustic Droplet Ejection Followed by Aqueous Two-Phase Exclusion Patterning. <i>Tissue Engineering - Part C: Methods</i> , 2012, 18, 647-657.  | 2.1  | 119       |
| 7  | The Size of Sonoporation Pores on the Cell Membrane. <i>Ultrasound in Medicine and Biology</i> , 2009, 35, 1756-1760.   | 1.5  | 107       |
| 8  | Effects of extracellular calcium on cell membrane resealing in sonoporation. <i>Journal of Controlled Release</i> , 2008, 126, 34-43.   | 9.9  | 96        |
| 9  | In vitro measurements of inertial cavitation thresholds in human blood. <i>Ultrasound in Medicine and Biology</i> , 1996, 22, 939-948.  | 1.5  | 92        |
| 10 | Acoustic tweezing cytometry for live-cell subcellular modulation of intracellular cytoskeleton contractility. <i>Scientific Reports</i> , 2013, 3, 2176.  | 3.3  | 75        |
| 11 | Effects of shear stress cultivation on cell membrane disruption and intracellular calcium concentration in sonoporation of endothelial cells. <i>Journal of Biomechanics</i> , 2011, 44, 164-169.     | 2.1  | 70        |
| 12 | Modulation of Intracellular Ca <sup>2+</sup> Concentration in Brain Microvascular Endothelial Cells in vitro by Acoustic Cavitation. <i>Ultrasound in Medicine and Biology</i> , 2010, 36, 1176-1187. | 1.5  | 62        |
| 13 | Dynamics of Sonoporation Correlated with Acoustic Cavitation Activities. <i>Biophysical Journal</i> , 2008, 94, L51-L53.  | 0.5  | 61        |
| 14 | Targeted drug delivery across the blood-brain barrier using ultrasound technique. <i>Therapeutic Delivery</i> , 2010, 1, 819-848.   | 2.2  | 61        |
| 15 | A review of physical phenomena associated with ultrasonic contrast agents and illustrative clinical applications. <i>Ultrasound in Medicine and Biology</i> , 2002, 28, 277-286.                      | 1.5  | 60        |
| 16 | Activation of a Bacterial Mechanosensitive Channel in Mammalian Cells by Cytoskeletal Stress. <i>Cellular and Molecular Bioengineering</i> , 2014, 7, 307-319.  | 2.1  | 57        |
| 17 | Acoustic tweezing cytometry enhances osteogenesis of human mesenchymal stem cells through cytoskeletal contractility and YAP activation. <i>Biomaterials</i> , 2017, 134, 22-30.                      | 11.4 | 57        |
| 18 | Characterization of the Dynamic Activities of a Population of Microbubbles Driven by Pulsed Ultrasound Exposure in Sonoporation. <i>Ultrasound in Medicine and Biology</i> , 2014, 40, 1260-1272.     | 1.5  | 48        |

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|----|--|------|-----------|
| 19 | Noninvasive, Quantitative, Spatiotemporal Characterization of Mineralization in Three-Dimensional Collagen Hydrogels Using High-Resolution Spectral Ultrasound Imaging. <i>Tissue Engineering - Part C: Methods</i> , 2012, 18, 935-946. | 2.1  | 46        |
| 20 | Effects of hydroxyapatite on endothelial network formation in collagen/fibrin composite hydrogels in vitro and in vivo. <i>Acta Biomaterialia</i> , 2014, 10, 3091-3097.   | 8.3  | 38        |
| 21 | High resolution Physio-chemical Tissue Analysis: Towards Non-invasive In Vivo Biopsy. <i>Scientific Reports</i> , 2016, 6, 16937.  | 3.3  | 37        |
| 22 | Microscale characterization of the viscoelastic properties of hydrogel biomaterials using dual-mode ultrasound elastography. <i>Biomaterials</i> , 2016, 88, 12-24.  | 11.4 | 37        |
| 23 | Noninvasive Quantification of In Vitro Osteoblastic Differentiation in 3D Engineered Tissue Constructs Using Spectral Ultrasound Imaging. <i>PLoS ONE</i> , 2014, 9, e85749.   | 2.5  | 37        |
| 24 | Ultrasound Imaging Techniques for Spatiotemporal Characterization of Composition, Microstructure, and Mechanical Properties in Tissue Engineering. <i>Tissue Engineering - Part B: Reviews</i> , 2016, 22, 311-321.                      | 4.8  | 35        |
| 25 | Inertial cavitation produced by pulsed ultrasound in controlled host media. <i>Journal of the Acoustical Society of America</i> , 1996, 100, 1199-1208.  | 1.1  | 30        |
| 26 | Multimode ultrasound viscoelastography for three-dimensional interrogation of microscale mechanical properties in heterogeneous biomaterials. <i>Biomaterials</i> , 2018, 178, 11-22.  | 11.4 | 29        |
| 27 | Two-Bubble Acoustic Tweezing Cytometry for Biomechanical Probing and Stimulation of Cells. <i>Biophysical Journal</i> , 2015, 108, 32-42.  | 0.5  | 27        |
| 28 | In vivo characterization of pancreatic and lymph node tissue by using EUS spectrum analysis: a validation study. <i>Gastrointestinal Endoscopy</i> , 2010, 71, 53-63.  | 1.0  | 25        |
| 29 | Acoustic Tweezing Cytometry Induces Rapid Initiation of Human Embryonic Stem Cell Differentiation. <i>Scientific Reports</i> , 2018, 8, 12977.   | 3.3  | 20        |
| 30 | Calibration and Evaluation of Ultrasound Thermography Using Infrared Imaging. <i>Ultrasound in Medicine and Biology</i> , 2016, 42, 503-517.   | 1.5  | 17        |
| 31 | Acoustic Actuation of Integrin-Bound Microbubbles for Mechanical Phenotyping during Differentiation and Morphogenesis of Human Embryonic Stem Cells. <i>Small</i> , 2018, 14, e1803137.  | 10.0 | 15        |
| 32 | Aqueous Two-Phase System Patterning of Microbubbles: Localized Induction of Apoptosis in Sonoporated Cells. <i>Advanced Functional Materials</i> , 2013, 23, 3420-3431.  | 14.9 | 13        |
| 33 | Dynamics of microbubble generation and trapping by self-focused femtosecond laser pulses. <i>Applied Physics Letters</i> , 2009, 95, 051107.   | 3.3  | 12        |
| 34 | Resonant acoustic rheometry for non-contact characterization of viscoelastic biomaterials. <i>Biomaterials</i> , 2021, 269, 120676.  | 11.4 | 12        |
| 35 | Fluorescence Imaging for Real-Time Monitoring of High-Intensity Focused Ultrasound Cardiac Ablation. <i>Annals of Biomedical Engineering</i> , 2005, 33, 1352-1359.  | 2.5  | 10        |
| 36 | Injectable pre-cultured tissue modules catalyze the formation of extensive functional microvasculature in vivo. <i>Scientific Reports</i> , 2020, 10, 15562.   | 3.3  | 10        |

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|----|---|------|-----------|
| 37 | Improving Survival of Disassociated Human Embryonic Stem Cells by Mechanical Stimulation Using Acoustic Tweezing Cytometry. <i>Biophysical Journal</i> , 2015, 108, 1315-1317.  | 0.5  | 9         |
| 38 | High-frequency spectral ultrasound imaging (SUSI) visualizes early post-traumatic heterotopic ossification (HO) in a mouse model. <i>Bone</i> , 2018, 109, 49-55.   | 2.9  | 9         |
| 39 | Tomographic Reconstruction of Tissue Properties and Temperature Increase for High-Intensity Focused Ultrasound Applications. <i>Ultrasound in Medicine and Biology</i> , 2013, 39, 1760-1770.                               | 1.5  | 8         |
| 40 | Characterization of lesion formation and bubble activities during high-intensity focused ultrasound ablation using temperature-derived parameters. <i>Infrared Physics and Technology</i> , 2013, 60, 108-117.              | 2.9  | 8         |
| 41 | High Frequency Spectral Ultrasound Imaging to Detect Metastasis in Implanted Biomaterial Scaffolds. <i>Annals of Biomedical Engineering</i> , 2020, 48, 477-489.  | 2.5  | 8         |
| 42 | A feasibility study of high intensity focused ultrasound for liver biopsy hemostasis. <i>Ultrasound in Medicine and Biology</i> , 2004, 30, 1531-1537.  | 1.5  | 7         |
| 43 | Acoustic tweezing cytometry for mechanical phenotyping of macrophages and mechanopharmaceutical cytotoxicity. <i>Scientific Reports</i> , 2019, 9, 5702.  | 3.3  | 7         |
| 44 | Improved outcome of targeted delivery of chemotherapy drugs to the brain using a combined strategy of ultrasound, magnetic targeting and drug-loaded nanoparticles. <i>Therapeutic Delivery</i> , 2011, 2, 137-141.         | 2.2  | 6         |
| 45 | High Frequency Spectral Ultrasound Imaging Detects Early Heterotopic Ossification in Rodents. <i>Stem Cells and Development</i> , 2021, 30, 473-484.  | 2.1  | 6         |
| 46 | Electrophysiological Changes Correlated with Temperature Increases Induced by High-Intensity Focused Ultrasound Ablation. <i>Ultrasound in Medicine and Biology</i> , 2015, 41, 432-448.                                    | 1.5  | 4         |
| 47 | Calcium Imaging of Sonoporation of Mammalian Cells. <i>AIP Conference Proceedings</i> , 2006, , .   | 0.4  | 3         |
| 48 | Microbubbles: Aqueous Two-Phase System Patterning of Microbubbles: Localized Induction of Apoptosis in Sonoporated Cells ( <i>Adv. Funct. Mater.</i> 27(2013)). <i>Advanced Functional Materials</i> , 2013, 23, 3366-3366. | 14.9 | 3         |
| 49 | Rapid translocation of pluripotency-related transcription factors by external uniaxial forces. <i>Integrative Biology (United Kingdom)</i> , 2019, 11, 41-52.   | 1.3  | 3         |
| 50 | Visualization and quantification of dynamic intercellular coupling in human embryonic stem cells using single cell sonoporation. <i>Scientific Reports</i> , 2020, 10, 18253.   | 3.3  | 3         |
| 51 | Transmural Ultrasound Imaging of Thermal Lesion and Action Potential Changes in Perfused Canine Cardiac Wedge Preparations by High Intensity Focused Ultrasound Ablation. <i>PLoS ONE</i> , 2013, 8, e82689.                | 2.5  | 3         |
| 52 | Integrin-Targeted Cyclic Forces Accelerate Neural Tube-Like Rosette Formation from Human Embryonic Stem Cells. <i>Advanced Biology</i> , 2019, 3, 1900064.  | 3.0  | 2         |
| 53 | Effects of Extracellular Calcium on Cell Membrane Resealing during Sonoporation. <i>AIP Conference Proceedings</i> , 2006, , .  | 0.4  | 0         |
| 54 | The size of sonoporation pores on the cell membrane. , 2008, , .  |      | 0         |

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|----|--|----|-----------|
| 55 | Ultrasound backscatter spectral analysis provides image feedback for histotripsy tissue fractionation. , 2011, , . |    | 0         |