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Employment

Research Assistant Professor

Research Assistant Professor
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Research outputs

Engineering Advanced Dynamic Biomaterials to Optimize Adoptive T-cell Immunotherapy

Wong, W. K., Yin, B., Rakhmatullina, A., Zhou, J. & Wong, S. H., 11 Jun 2021, In: Engineered Regeneration. 2, p. 70-81 12 p., 2.

Enhanced mechanosensing of cells in synthetic 3D matrix with controlled biophysical dynamics

Yang, B., Wei, K., Loebel, C., Zhang, K., Feng, Q., Li, R., Wong, S. H., Xu, X., Lau, C., Chen, X., Zhao, P., Yin, C., Burdick, J. A., Wang, Y. & Bian, L., 10 Jun 2021, In: Nature Communications. 13 p., 3514.

Nanomedicine-Boosting Tumor Immunogenicity for Enhanced Immunotherapy

Huang, J., Yang, B., Peng, Y., Wong, S. H., Bian, L., Zhu, K., Shuai, X. & Han, S., 21 May 2021, In: Advanced Functional Materials. 31, 21, 30 p., 2011171.

Long-Term Detection of Oncogenic MicroRNA in Living Human Cancer Cells by Gold@ Polydopamine-Shell Nanoprobe

Wong, W. K. R., Wong, S. H. & Bian, L., 13 Jul 2020, In: ACS Biomaterials Science and Engineering. 6, 7, p. 3778-3783 6 p., 6.

Soft Polymeric Matrix as a Macroscopic Cage for Magnetically Modulating Reversible Nanoscale Ligand Presentation

Wong, S. H. D., Wong, W. K. R., Lai, C. H. N., Oh, J., Li, Z., Chen, X., Yuan, W. & Bian, L., 13 May 2020, In: Nano Letters. 20, 5, p. 3207-3216 10 p.

Biomimetic Presentation of Cryptic Ligands via Single-Chain Nanogels for Synergistic Regulation of Stem Cells

Chen, X., Lai, N. C. H., Wei, K., Li, R., Cui, M., Yang, B., Wong, S. H. D., Deng, Y., Li, J., Shuai, X. & Bian, L., 28 Apr 2020, In: ACS Nano. 14, 4, p. 4027-4035 9 p.

Intrapulmonary Cellular-Level Distribution of Inhaled Nanoparticles with Defined Functional Groups and Its Correlations with Protein Corona and Inflammatory Response

Yin, B., Chan, C. K. W., Liu, S., Hong, H., Wong, S. H. D., Lee, L. K. C., Ho, L. W. C., Zhang, L., Leung, K. C. F., Choi, P. C. L., Bian, L., Tian, X. Y., Chan, M. N. & Choi, C. H. J., 24 Dec 2019, In: ACS Nano. 13, 12, p. 14048-14069 22 p.

Conformational manipulation of scale-up prepared single-chain polymeric nanogels for multiscale regulation of cells

Chen, X., Li, R., Wong, S. H. D., Wei, K., Cui, M., Chen, H., Jiang, Y., Yang, B., Zhao, P., Xu, J., Chen, H., Yin, C., Lin, S., Lee, W. Y. W., Jing, Y., Li, Z., Yang, Z., Xia, J., Chen, G., Li, G. & 1 others, Bian, L., 1 Dec 2019, In: Nature Communications. 10, 1, 2705.

Photocontrolled siRNA Delivery and Biomarker-Triggered Luminogens of Aggregation-Induced Emission by Up-Conversion NaYF₄:Yb³⁺, Tm³⁺@SiO₂ Nanoparticles for Inducing and Monitoring Stem-Cell Differentiation

Li, J., Leung, C. W. T., Wong, D. S. H., Xu, J., Li, R., Zhao, Y., Yung, C. Y. Y., Zhao, E., Tang, B. Z. & Bian, L., 26 Jun 2019, In: ACS Applied Materials and Interfaces. 11, 25, p. 22074-22084 11 p.

Anisotropic Ligand Nanogeometry Modulates the Adhesion and Polarization State of Macrophages

Kang, H., Wong, S. H. D., Pan, Q., Li, G. & Bian, L., 13 Mar 2019, In: Nano Letters. 19, 3, p. 1963-1975 13 p.

Citrate-based fluorophores in polymeric matrix by easy and green in situ synthesis for full-band UV shielding and emissive transparent display

Chen, H., Li, R., Xu, X., Zhao, P., Wong, D. S. H., Chen, X., Chen, S. & Yan, X., 1 Jan 2019, In: Journal of Materials Science. 54, 2, p. 1236-1247 12 p.

Organic Semiconducting Polymer Nanoparticles for Photoacoustic Labeling and Tracking of Stem Cells in the Second Near-Infrared Window

Yin, C., Wen, G., Liu, C., Yang, B., Lin, S., Huang, J., Zhao, P., Wong, S. H. D., Zhang, K., Chen, X., Li, G., Jiang, X., Huang, J., Pu, K., Wang, L. & Bian, L., 26 Dec 2018, In: ACS Nano. 12, 12, p. 12201-12211 11 p.

Remote Control of Intracellular Calcium Using Upconversion Nanotransducers Regulates Stem Cell Differentiation In Vivo

Kang, H., Zhang, K., Pan, Q., Lin, S., Wong, D. S. H., Li, J., Lee, W. Y. W., Yang, B., Han, F., Li, G., Li, B. & Bian, L., 10 Oct 2018, In: Advanced Functional Materials. 28, 41, 1802642.

Detection of Matrix Metalloproteinase 13 for Monitoring Stem Cell Differentiation and Early Diagnosis of Osteoarthritis by Fluorescent Light-Up Probes with Aggregation-Induced Emission Characteristics

Li, J., Lee, W. Y., Wu, T., Leung, C. W., Xu, J., Wong, D. S., Li, R., Li, G., Tang, B. Z. & Bian, L., Oct 2018, In: Advanced Biosystems. 2, 10, 1800010.

Near-infrared light-controlled regulation of intracellular calcium to modulate macrophage polarization

Kang, H., Zhang, K., Wong, D. S. H., Han, F., Li, B. & Bian, L., Sep 2018, In: Biomaterials. 178, p. 681-696 16 p.

Magnetic Manipulation of Reversible Nanocaging Controls in Vivo Adhesion and Polarization of Macrophages

Kang, H., Jung, H. J., Kim, S. K., Wong, D. S. H., Lin, S., Li, G., Dravid, V. P. & Bian, L., 26 Jun 2018, In: ACS Nano. 12, 6, p. 5978-5994 17 p.

Remote Control of Heterodimeric Magnetic Nanoswitch Regulates the Adhesion and Differentiation of Stem Cells

Kang, H., Jung, H. J., Wong, D. S. H., Kim, S. K., Lin, S., Chan, K. F., Zhang, L., Li, G., Dravid, V. P. & Bian, L., 9 May 2018, In: Journal of the American Chemical Society. 140, 18, p. 5909-5913 5 p.

Self-assembled N-cadherin mimetic peptide hydrogels promote the chondrogenesis of mesenchymal stem cells through inhibition of canonical Wnt/ β -catenin signaling

Li, R., Xu, J., Wong, D. S. H., Li, J., Zhao, P. & Bian, L., Nov 2017, In: Biomaterials. 145, p. 33-43 11 p.

Remote Control of Multimodal Nanoscale Ligand Oscillations Regulates Stem Cell Adhesion and Differentiation

Kang, H., Wong, D. S. H., Yan, X., Jung, H. J., Kim, S., Lin, S., Wei, K., Li, G., Dravid, V. P. & Bian, L., 24 Oct 2017, In: ACS Nano. 11, 10, p. 9636-9649 14 p.

Mussel-mimetic hydrogels with defined cross-linkers achieved: Via controlled catechol dimerization exhibiting tough adhesion for wet biological tissues

Zhao, P., Wei, K., Feng, Q., Chen, H., Wong, D. S. H., Chen, X., Wu, C. C. & Bian, L., 11 Oct 2017, In: Chemical Communications. 53, 88, p. 12000-12003 4 p.

Remote Manipulation of Ligand Nano-Oscillations Regulates Adhesion and Polarization of Macrophages in Vivo

Kang, H., Kim, S., Wong, D. S. H., Jung, H. J., Lin, S., Zou, K., Li, R., Li, G., Dravid, V. P. & Bian, L., 11 Oct 2017, In: Nano Letters. 17, 10, p. 6415-6427 13 p.

Optical μ -Printing of Cellular-Scale Microscaffold Arrays for 3D Cell Culture

Xia, O., Zhang, K., Wong, S. H., Wu, J., Feng, Q., Bian, L. & Zhang, A., 21 Aug 2017, In: Scientific Reports. 7, 8 p., 8880.

Magnetically Tuning Tether Mobility of Integrin Ligand Regulates Adhesion, Spreading, and Differentiation of Stem Cells

Wong, D. S. H., Li, J., Yan, X., Wang, B., Li, R., Zhang, L. & Bian, L., 8 Mar 2017, In: Nano Letters. 17, 3, p. 1685-1695 11 p.

