



所属学院 材料科学与工程学院

学科领域 高分子材料，生物工程

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个人简介

于 2006 年 6 月美国俄亥俄州立大学 (The Ohio State University) 化学与生物分子工程系毕业获得博士学位，2006 年 7 月加入美国俄亥俄纳米科学与工程研发中心，开发新型的药物缓释体系用于癌症的治疗。在 2013 年 7 月加入华东理工大学之前，供职于美国 BioLOC 公司担任资深研究员，负责微流生物晶片项目的开发。已在 Biomaterials、Journal of Controlled Release、Small 等杂志发表 SCI 论文 30 余篇，编写英文专著 1 部，撰写邀请综述 3 篇。研究领域主要包括表界面处理技术及微纳结构研究、生物晶片的设计和开发、新型的药物缓释器械、以及生物高分子合成（水凝胶和生物降解材料）。

研究方向

生物材料的表界面改性；微流生物晶片的设计与开发；药物的可控递送体系

研究成果及主要发表文章

- Qin J, He H*, Zhang W, Chen F, Liu C*. Effective incorporation of rhBMP-2 on implantable titanium disks with microstructures by using electrostatic spraying deposition. RSC Advances, 6: 51914-51923, 2016.
- Yang Y, Zhao X, Wang L, Wang F*, He H*, Wang X. Photo-polymerization of monomer crystals producing thermo-responsive micropatterns to direct cell growth and cell selective harvest. Polym. 74(1):150-158, 2015.
- Wang X, He H, Indole-3-carbinol inhibits tumorigenicity of hepatocellular carcinoma cells via suppression of microRNA-21 and upregulation of phosphatase and tensi. Biochimica Et Biophysica Acta, 1853(1):244-253, 2015.
- Zhang W, He H, Tian Y, Gan Q, Zhang J, Yuan Y*, Liu C*. Calcium ion-induced formation of β -sheet/-turn structure leading to alteration of osteogenic activity of bone morphogenetic protein-2. Scientific Report 5:12694-12700, 2015.
- Wang LJ, Li L, Yu J, Wu Y, He H, Ouyang X, Zhao X, Yen Y, Lee LJ. Large-area graphene coating via superhydrophilic-assisted electro-hydrodynamic spraying deposition. Carbon 79:294-301, 2014.
- Wang X, Yu B, Ren W, Mo X, Zhou C, He H, Jia H, Wang L, Jacob ST, Lee RJ, Ghoshal K, Lee LJ. Enhanced hepatic delivery of siRNA and microRNA using oleic acid based lipid nanoparticle formulations. J Control Rel. 172(3):690-698, 2013.
- He H, Luedke E, et al., A nanoporous cell-therapy device with controllable biodegradation for long-term drug release. J Control Rel. 165(3): 226-233, 2013.
- Wang F, He H (co-first), etc. Micropatterned thermoresponsive surfaces by polymerization of monomer crystals: modulating cellular morphology and cell substrate interactions. Anal Chem. 84 (21): 9439- 9445, 2012.
- He H, Grignol V, et al. Use of a Nanoporous Biodegradable Miniature Device to Regulate Cytokine Release for Cancer Treatment, J Control Rel. 151, 239-245, 2011.
- He H, Yuan Y, Wang W, Chiou N-R, Epstein A J, and Lee L J, Design and testing of a CD-like biochip for enzyme-linked immunosorbent assay. Biomicrofluidics 3, 1-17, 2009.
- Yuan Y, He H, and Lee L J, Protein A-based antibody immobilization onto polymeric microdevices for enhanced sensitivity of enzyme-linked immunosorbent assay. Biotech Bioeng. 102, 891-901, 2009.
- Yen C, He H, Lee L J, and W. Ho, Synthesis and characterization of polycaprolactone nanoporous membranes for biomedical applications. J Mem Sci. 343, 180-188, 2009.
- Zhang X, He H (co-first author), Yen C, Ho W, and Lee L J, A biodegradable, immunoprotective, dual nanoporous capsule for cell based therapies. Biomaterials 29, 4253-4259, 2008.
- Guan J, He H, Lee L J, and Hansford D J, Fabrication of particulate reservoir-containing, capsule-like, and self-foldable polymer microstructures for drug delivery. Small 3, 412-418, 2007.
- He H, Li L, and Lee L J, Photopolymerization and structure formation of methacrylic acid based hydrogels in water/ethanol mixture. Polym. 47, 1612-1619, 2006.
- He H, Guan J, and Lee L J, Oral delivery devices based on self-folding hydrogels. J Control Rel. 110(2), 339-346, 2006.
- Guan J, He H, Hansford D J, and Lee L J, Self-folding hydrogel three-dimensional microstructures. J Phy Chem B. 109(49), 23134-23137, 2005.
- He H, Cao X, and Lee L J, Design of a novel hydrogel-based intelligent system for controlled drug release. J Control Rel. 95, 391-402, 2004.

Book and Chapters:

- Liu C, He H, Volume X: Developments and Applications of Calcium Phosphate Bone Cements, Spring, 2017.
- He H, Liu C*, Stem cell differentiation mediated by biomaterials/surfaces. in book: Polymeric Biomaterials for Tissue Regeneration, Spring, pp187-254, 2016.
- Guan J, He H, Yu B, Lee L J*, Polymeric nanoparticles and nanopore membranes for controlled drug and gene delivery, in book: Biomed Nanostructures, Wiley, pp115-137, 2008.