

## XINQIAO JIA

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### **A. Professional Preparation:**

Fudan University, Shanghai, China	Applied Chemistry	B.S.	1995
Fudan University, Shanghai, China	Macromolecular Chemistry & Physics	M.S.	1998
University of Massachusetts-Amherst, MA	Polymer Science & Engineering	Ph.D.	2002

### **B. Appointments:**

Visiting Scientist, Department of Urology, Johns Hopkins University	2018-2019
Visiting Scientist, Cell Biology Section, National Institute of Dental and Craniofacial Research	2018-2019
Professor, Department of Materials Science and Engineering, Department of Biomedical Engineering, Department of Biological Sciences, University of Delaware	2017-present
Core Director, Microscopy and Mechanical Testing, NIH Center of Biomedical Research Excellence on Advanced Biomaterials	2014-2019
Associate Professor, Department of Materials Science and Engineering, Department of Biomedical Engineering, Department of Biological Sciences, University of Delaware	2011-2017
Member of the Biomedical Engineering Executive Committee, University of Delaware	2011-2014
Director, Graduate Program, Biomedical Engineering, University of Delaware	2011-2013
Director, Graduate Program, Materials Science and Engineering, University of Delaware	2010-2018
Affiliated Faculty, Delaware Biotechnology Institute, University of Delaware	2005-present
Assistant Professor, Department of Materials Science and Engineering, University of Delaware	2005-2011
Postdoctoral Research Associate, Department of Chemical Engineering, Massachusetts Institute of Technology	2002-2005
Research Assistant, Department of Polymer Science and Engineering, University of Massachusetts, Amherst	1998-2002
Research Assistant, Department of Macromolecular Science, Fudan University, Shanghai, China	1995-1998

### **C. Relevant Products (96 total; 5 products most closely related to the proposed project)**

Dicker, K. T.; Moore, A. C.; Garabedian, N. T.; Zhang, H.; Scinto, S. L.; Akins, R. E.; Burris, D. L.; Fox, J. M.; **Jia, X.** "Spatial Patterning of Molecular Cues and Vascular Cells in Fully Integrated Hydrogel Channels via Interfacial Bioorthogonal Crosslinking" *ACS Appl. Mater. Interfaces*, **2019**, *11*, 16402-16411.

Liu, S.; Moore, A. C.; Zerdoum, A. B.; Zhang, H.; Scinto, S. L.; Zhang, H.; Gong, L.; Burris, D. L.; Rajasekaran, A. K.; Fox, J. M.; **Jia, X.** "Cellular Interactions with Hydrogel Microfibers Synthesized via Interfacial Tetrazine Ligation" *Biomaterials*, **2018**, *180*, 24-35.

Dicker, K. T.; Song, J.; Moore, A. C.; Zhang, H.; Li, Y.; Burris, D. L.; **Jia, X.** and Fox, J. M. "Core–Shell Patterning of Synthetic Hydrogels Via Interfacial Bioorthogonal Chemistry for Spatial Control of Stem Cell Behavior" *Chem. Sci.* **2018**, *9*, 5394–5404

Han, Z.; Trout, W. S.; Liu, S.; Andrade, G. A.; Hudson, D. A.; Scinto, S. L.; Dicker, K. T.; Li, Y.; Lazouski, N.; Rosenthal, J.; Thorpe, C.; **Jia, X.**; Fox, J. M. "Rapid Bioorthogonal Chemistry Turn–on through Enzymatic or Long Wavelength Photocatalytic Activation of Tetrazine Ligation", *J. Am. Chem. Soc.*, **2016**, *38*, 5978–5983.

Liu, S.; Zhang, H.; Remy R. A.; Deng, F.; Mackay, M. E.; Fox, J. M.; **Jia, X.** "Meter–Long Multiblock Copolymer Microfibers via Interfacial Bioorthogonal Polymerization" *Adv. Mater.*, **2015**, *27*, 2783–2790.

### **5 Other Products of Interest (Publications and Patents):**

Ravikrishnan, A.; Zhang, H.; Fox, J. M.; **Jia, X.** "Core–Shell Microfibers via Bioorthogonal Layer–by–Layer Assembly" *ACS Macro Lett.*, **2020**, *9*, 1369–1375

Hao, Y.; Song, J.; Ravikrishnan, A.; Dicker, K. T.; Fowler, E. W.; Zerdoum, A. B.; Li, Y.; Zhang, H.; Rajasekaran, A. K.; Fox, J. M.; **Jia, X.** "Rapid Bioorthogonal Chemistry Enables in Situ Modulation of the Stem Cell Behavior in 3D without External Triggers" *ACS Appl. Mater. Interfaces* **2018**, *10*, 26016-26027.

Ozdemir, T.; Srinivasan, P. P.; Zakheim, D. R.; Harrington, D. A.; Witt, R. L.; Farach–Carson, M. C.; **Jia, X.**; Pradhan–Bhatt, S. "Bottom–up Assembly of Salivary Gland Microtissues for Assessing Myoepithelial Cell Function", *Biomaterials*, **2017**, *142*, 124–135.

Ravikrishnan, A.; Ozdemir, T.; Bah, M.; Baskerville, K. A.; Shah, S. I.; Ayyappan, R. K.; **Jia, X.** "Regulation of Epithelial–to–Mesenchymal Transition Using Biomimetic Fibrous Scaffolds", *ACS Appl. Mater. Interfaces*, **2016**, *8*, 17915–17926.

Tong, Z.; Duncan, R. L.; **Jia, X.** "Modulating the Behaviors of Mesenchymal Stem Cells via the Combination of High–Frequency Vibratory Stimulations and Fibrous Scaffolds", *Tissue Eng Part A*, **2013**, *19*, 1862–1878

### **D. Synergistic Activities:**

**(1) Selected Service to K-12 and Undergraduate Education** – Science Judge for Siemens Competition in Math, Science & Technology (2011-2012 ) and Mentor/Host for REU and RET Program (2009)

**(2) Selected Service to Graduate Education** – Graduate Program Director for the Department of Materials Science and Engineering and Department of Biomedical Engineering (2010-present)

**(3) Selected Service to the American Chemical Society** - Polymeric Materials Science and Engineering (PMSE) Division Programming Chair (2015-2018) and Thematic Program Chair (2012)

**(4) Selected Service to UD Community** - Member of the Executive Committee for Biomedical Engineering Program (2010-2015) and Member of the College of Engineering P&T Committee (2019-present)

**(5) Selected Service to the Scientific Community** - Reviewer for over 100 scientific journals, regular reviewer for NSF, NIH (2005-present)