

Yanfen Li

University of Massachusetts Lowell | Department of Biomedical Engineering
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EDUCATION

- June 2018 **Doctor of Philosophy, Bioengineering**
University of Illinois at Urbana-Champaign
Thesis Title: *Engineered Hydrogels for Tracking Cell Signaling from the Outside-In*
- May 2012 **Bachelor of Science, Bioengineering**
University of Illinois at Urbana-Champaign

PROFESSIONAL EXPERIENCE

- 2018–Present **Assistant Teaching Professor**
Department of Biomedical Engineering
University of Massachusetts Lowell | Lowell MA

HONORS AND AWARDS

- 2017 ASEE Biomedical Engineering Division Best Poster Award
Department of Bioengineering Student Leadership Award
List of Teachers Ranked as Excellent, Outstanding (three semesters)
ASEE Biomedical Engineering Division Travel Award
College of Engineering Graduate Student Leadership Award, Special distinction
Volunteer Service Recognition Award, Finalist
- 2016 List of Teachers Ranked as Excellent, Outstanding (two semesters)
Office of the Provost Excellence in Undergraduate Teaching Award, Department Nominee
Department of Bioengineering Teaching Excellence Fellowship

GRANTS AND FELLOWSHIPS

- 2016–2017 **Strategic Instructional Innovations Program Grant**. Developing Instruction in Technical Writing for Freshman Engineering Students. P. Scott Carney, Lance Cooper, Celia Elliott, Karin Jensen, **Yanfen Li**, Marcia Pool, Andrew Smith, Athena Lin, Kelly Ritter.
\$29,230
- 2013–2018 National Science Foundation Graduate Research Fellow
- 2016–2017 Mavis Future Faculty Fellowship Program
- 2015–2016 Mavis Future Faculty Fellowship Program

TEACHING EXPERIENCE

ASSISTANT TEACHING PROFESSOR | UNIVERSITY OF MASSACHUSETTS LOWELL

- Spring 2019 BMEN 3020: Biomedical Engineering II
- Spring 2019 BMEN 3025L: Biomedical Engineering Lab II
- Spring 2019 BMEN 4110: Tissue Engineering
- Fall 2018 BMEN 1070: Introduction to Biomedical Engineering
- Fall 2018 BMEN 4070: Biomaterials

TEACHING EXPERIENCE CONT.**UNIVERSITY OF ILLINOIS AT URBANA CHAMPAIGN**

- 2018 ENG 198: Writing in Engineering Fields (Co-Instructor)
- 2016–2018 BIOE 202: Cell and Tissue Engineering Lab (Teaching Assistant)
- 2016–2017 ENG 198: IEFX Research (Co-Instructor)
- 2013 ENG 315: Learning in Community (Teaching Assistant)
- 2012 BIOE 306: Bioreactor Lab (Course Developer)

RESEARCH EXPERIENCE

- September 2018 – Present **Assistant Teaching Professor | Department of Biomedical Engineering**
University of Massachusetts Lowell | Lowell MA
- June 2012 – June 2018 **Graduate Research Assistant | Department of Bioengineering**
University of Illinois at Urbana-Champaign | Urbana IL
Professor Kristopher Kilian
- May 2011– May 2012 **Research Assistant | Magnetic Resonance Functional Imaging Lab**
University of Illinois at Urbana-Champaign | Urbana IL
Professor Brad Sutton
- May 2007– May 2012 **Research Assistant | Department of Animal Science**
University of Illinois at Urbana-Champaign | Urbana IL
Professor Romana Nowak
- May 2007– May 2009 **Research Assistant | Department of Comparative Bioscience**
University of Illinois at Urbana-Champaign | Urbana IL
Professor Indrani Bagchi

PUBLICATIONS

17. **Yanfen Li***, Michael J Fanous*, Kristopher A. Kilian, Gabriel Popescu. *Quantitative phase imaging reveals matrix stiffness-dependent growth and migration of cancer cells*, Submitted.
16. Shamira Sridharan*, **Yanfen Li***, Louis Foucard, Hassaan Majeed, Basanta Bhaduri, Alex Levine, Kristopher A. Kilian, and Gabriel Popescu. *Simultaneous cell traction and growth measurements using light*, Journal of Biophotonics, 2018, e201800182.
15. Yi Pei, Sayyed Hamed Shahoei, **Yanfen Li**, Erik R. Nelson, Kristopher A. Kilian. *Vertical Integration of Cell-Laden Hydrogels with Bioinspired Photonic Crystal Membranes*, Advanced Materials Interfaces, 2018.
14. Chelsea Anorma, Jamila Hedhli, Thomas E. Bearrood, Nicholas W. Pino, Sarah H. Gardner, Hiroshi Inaba, Pamela Zhang, **Yanfen Li**, Daven Feng, Sara E. Dibrell, Kristopher A. Kilian, Lawrence W. Dobrucki, Timothy M. Fan, and Jefferson Chan. *Surveillance of Cancer Stem Cell Plasticity Using an Isoform-Selective Fluorescent Probe for Aldehyde Dehydrogenase 1A1*. ACS Central Science, 2018, 4 (8), 1045-1055
13. **Yanfen Li**, Claire B. Tang, Kristopher A. Kilian. *Matrix Mechanics Influence Fibroblast–Myofibroblast Transition by Directing the Localization of Histone Deacetylase 4*. Cellular and Molecular Bioengineering, 2017, 10 (5), 405-415
12. **Yanfen Li**, Karin Jensen, Phil Jensen, Paul Jensen. *Work in Progress: “Blinded” grading rubrics for bioengineering lab reports*. American Society for Engineering Education Annual Conference 2017.
11. Amr A. Abdeen*, Junmin Lee*, **Yanfen Li**, and Kristopher A. Kilian, *Cytoskeletal priming of mesenchymal stem cells to a medicinal phenotype*. Regenerative Engineering and Translational Medicine, 2017, 3, 5-14.
10. Mohammad Zahid*, Evin Groundwater*, **Yanfen Li**, Karin Jensen. *Work in Progress: Design of a First-Year Rhetoric Course for Engineering Students*. American Society for Engineering Education Annual Conference 2017.
9. Kaitlin Tyler, **Yanfen Li**, Wan-Ting Chen, Chaoyang Liu, Nicole Jackson. *Keeping current: An update on the structure and evaluation of a program for graduate women interested in engineering academia*. American Society for Engineering Education Annual Conference 2017.

PUBLICATIONS CONT.

8. Nicole Jackson, Chaoyang Liu, Wan-Ting Chen, **Yanfen Li**, Kaitlin Tyler. *Overcoming difficulties in research statement preparation for the academic job search: expansion of a peer-focused professional development program*. American Society for Engineering Education Annual Conference 2017.
7. **Yanfen Li**, Malavika Adur, Athilakshmi Kannan, Juanmahel Davila, Yuechao Zhao, Romana A Nowak, Milan K Bagchi, Indrani C Bagchi, Quanxi Li, *Progesterone Alleviates Endometriosis via Inhibition of Uterine Cell Proliferation, Inflammation and Angiogenesis in an Immunocompetent Mouse Model*, PloS one, 2016, 11(10): e0165347.
6. Tiffany H. Huang*, Yi Pei*, Douglas Zhang, **Yanfen Li**, and Kristopher A. Kilian, *Patterned porous silicon photonic crystals with modular surface chemistry for spatial control of neural stem cell differentiation*. Nanoscale, 2016, 8, 10891-10895.
5. **Yanfen Li**, Danielle Mai, Elizabeth Horstman, Rohit Bhargava, *Preparing Female Engineering Doctoral Students for the Academic Job Market through a Training Program Inspired by Peer Review*. American Society for Engineering Education Annual Conference 2015.
4. Elizabeth Horstman, Danielle Mai, **Yanfen Li**, Rohit Bhargava, *A Program for Graduate Women in Engineering Pursuing Academic Careers (iFEAT: Illinois Female Engineers in Academia Training)*. American Society for Engineering Education Annual Conference 2015.
3. **Yanfen Li**, Kristopher A. Kilian. *Bridging the Gap: From 2D Cell Culture to 3D Microengineered Extracellular Matrices*. Adv. Health. Mat. 2015 Dec. 1; 4(18):2780-2796.
2. Benjamin Zimmerman, Bradley P Sutton, Kathy A Low, Mark A Fletcher, Chin Hong Tan, Nils Schneider-Garces, **Yanfen Li**, Cheng Ouyang, Edward L Maclin, Gabriele Gratton, Monica Fabiani. *Cardiorespiratory fitness mediates the effects of aging on cerebral blood flow*. Front. Aging Neuro. 8:9, 2014.
1. Jiajia Bi, **Yanfen Li**, Valerie A. Cruz Flores, Fengyun Sun, Mary Ann Handel, and Romana A. Nowak. *Infertility in Basigin Null Mutant Male Mice May Be Due to Impaired Interactions Between Gametes and Sertoli Cells*. Dev Bio. 2013 Aug 15; 380(2):145-56.

OUTREACH AND SERVICE

UNIVERSITY OF ILLINOIS AT URBANA CHAMPAIGN

2013–Present	Illinois Female Engineers in Academia Training Program Founder and Co-Coordinator
2013–Present	Biomedical Engineering Society, UIUC Graduate Student Chapter Founder and Director
2016–Present	Discover Bioengineering Camp Co-Director
2009–Present	Girl's Adventures in Mathematics, Engineering and Science Camp Lecturer
2016-2017	American Society for Engineering Education, UIUC Chapter Treasurer
2016–2017	Bioengineering Student Ambassador Program Ambassador
2013–2014	Society of Women Engineers, UIUC Graduate Student Chapter Academic Liaison
2010–2012	Orpheum Children's Science Museum Board of Education Committee Member
2011–2012	Engineering Student Alumni Ambassadors (ESAA) Director of Networking
2011–2012	Krannert Center Student Association President

PROFESSIONAL DEVELOPMENT

- 2017 CITL Graduate Teacher Certificate
- 2017 Dr. Sandra J. Finley Teacher Scholar Certificate
- 2017 Writing Across the Curriculum TA Seminar/Workshop

PATENTS

- Kristopher A. Kilian, Junmin Lee, **Yanfen Li**, Cell Programming via geometric cues, US Published Application 20150118729.

PRESENTATIONS

ORAL PRESENTATIONS

7. **Yanfen Li**, Kris Kilian. *Role of HDAC4 in Mechanosensing in Fibroblasts*. Material Science Engineering Soft Materials Seminar. October 31, 2016
6. **Yanfen Li**, Kris Kilian. *Guiding Epigenetics via Material Cues*. Material Science Engineering Soft Materials Seminar. April 11, 2016
5. **Yanfen Li**, Danielle Mai, Elizabeth Horstman, Rohit Bhargava, *Preparing Female Engineering Doctoral Students for the Academic Job Market through a Training Program Inspired by Peer Review*. American Society for Engineering Education Annual Conference. June 15th 2015. Seattle, Washington
4. **Yanfen Li**, Kris Kilian. *Controlling Epigenetics through Geometric Constraints*. Bioengineering Graduate Student Seminar. October 12, 2015
3. **Yanfen Li**, Kris Kilian. *Controlling Epigenetics through Geometric Constraints*. Material Science Engineering Soft Materials Seminar. April 21, 2015
2. **Yanfen Li**, Kris Kilian. *Geometric Cues for Somatic Cell Reprogramming*. Material Science Engineering Soft Materials Seminar. Jan. 28, 2014
1. **Yanfen Li**, Luke Edelman, Dave Luedtke, *ViroSense: Simple and Affordable Medical Biosensors*. International Genetically Engineered Machines competition. 2008. Massachusetts Institute of Technology.

POSTER PRESENTATIONS

5. **Yanfen Li**, Karin Jensen, Phil Jensen, Paul Jensen. *Work in Progress: "Blinded" grading rubrics for bioengineering lab reports*. American Society for Engineering Education Annual Conference 2017.
4. **Yanfen Li**, Claire Tang, Kris Kilian. *Role of HDAC4 in Mechanosensing in Fibroblasts*. Biomedical Engineering Society Regional Conference. Nov. 4th 2016. Urbana-Champaign, Illinois
3. **Yanfen Li**, Claire Tang, Kris Kilian. *Geometry Guides Histone State at the Perimeter of Model 2D Tissues*. Biomedical Engineering Society Annual Conference. Oct. 9th 2015. Tampa, Florida
2. Elizabeth Horstman, Danielle Mai, **Yanfen Li**, Rohit Bhargava, *A Program for Graduate Women in Engineering Pursuing Academic Careers (iFEAT: Illinois Female Engineers in Academia Training)*. American Society for Engineering Education Annual Conference. 2015. Seattle, Washington
1. Valerie A. Cruz Flores, **Yanfen Li**, Romana Nowak. *Expression of Adhesion Molecules in Sertoli Cells and Germ Cells of Male Mice that Lack the Basigin Gene*. Allerton Reproductive Biology Conference. 2007. University of Illinois at Urbana-Champaign.

* Joint co-first author