

Meng Deng

PhD 2010, University of Virginia, Chemical Engineering

BS 2004, Tsinghua University, Beijing, Chemical Engineering

Academic Experience:

- Assistant Professor, Department of Agricultural and Biological Engineering (Courtesy in Weldon School of Biomedical Engineering, School of Materials Engineering), Purdue University, 2014 – present.
- Visiting Scientist, The David H. Koch Institute for Integrative Cancer Research/Massachusetts Institute of Technology, 2013.
- University postdoctoral Fellow, Institute for Regenerative Engineering/University of Connecticut Health Center, 2010 – 2013

Professional Organizations: Society for Biomaterials; Orthopaedic Research Society; Tissue Engineering and Regenerative Medicine International Society; Sigma Xi (The Scientific Research Society); The New York Academy of Sciences; Biomedical Engineering Society; American Institute of Chemical Engineers; American Association of Pharmaceutical Scientists

Honors and Awards:

- Invited Speaker of 6th Annual Society for Biomaterials Sponsored Biomaterials Day at the University of Kentucky (2014)
- Ralph W. and Grace M. Showalter Research Trust Award (2015)
- ABE Outstanding Department Teacher Award (2015-2016, 2016-2017)
- Nominee, Richard L. Kohls Early Career Award (2015, 2017)
- Teaching for Tomorrow Award (2016)
- Nominee, Moore Inventor Fellows (one of the two nominees, 2017)
- Invited Thought Leader Symposium Speaker for SFB Annual Meeting (2017)
- Invited Speaker for the ASABE Annual Meeting (2018)

Service Activities (past five years):

Internal:

- 2015, Advisor Search Committee, Department of Agricultural and Biological Engineering
- 2014-present, Graduate Programs Committee, Member, Department of Agricultural and Biological Engineering
- 2015-2018, Academic Programs Committee, Department of Agricultural and Biological Engineering
- 2015-2018, Graduate Admissions Committee, Weldon School of Biomedical Engineering
- 2015, 2016, Faculty Chair for Biological and Food Process Engineering Session, 3rd Graduate Industrial Research Symposium, Department of Agricultural and Biological Engineering
- 2017, 2018 Instructional Innovation Equipment Grant Reviewer

External:

- Editorial Board Member, Regenerative Engineering and Translational Medicine, (2015-)
- Reviewer for Nanomaterials Bone Regeneration (NMBR), CDMRP, (2015)
- Editorial Board Member, Frontiers in Biomaterials, (2016-)
- Reviewer for CIMIT (Consortia for Improving Medicine with Innovation and Technology)

- Reviewer for NSF CBET
- Reviewer for Society for Biomaterials Annual Meetings, World Biomaterials Congress, and Biomedical Engineering Society Annual Meetings
- Reviewer for Elsevier Science and Technology books specialising in Biomaterials
- *Ad Hoc* Reviewer for 15+ journals in the fields of biomaterials, tissue engineering, nanotechnology, drug delivery such as *Acta Biomaterialia*, *Advanced Drug Delivery Reviews*, *Advanced Materials*, *Advanced Healthcare Materials*, *Biomedical Materials*, *Cellular and Molecular Bioengineering*, *International Journal of Pharmaceutics*, *Journal of Biomedical Materials Research*, *Journal of Biomedical Nanotechnology*, *Nanotechnology*, and *PLOS ONE*.

Publications and Presentations (past five years):

1. Kumbar, S.G., Laurencin, C.T., Deng, M (Editors): *Natural and Synthetic Biomedical Polymers*, Elsevier, ISBN: 978-0-12-396983-5, 2014.
2. Jiang, T.*, Deng, M.*, James, R., Nair, L.S., Laurencin, C.T.*: Micro- and nanofabrication of chitosan structures for regenerative engineering. *Acta Biomaterialia*, 2014, 10(4):1632-45.
3. Cushnie, E.K.*, Ulery, B.*, Nelson, S., Deng, M.*, Sethuraman, S., Doty, S.B., Lo, W.H., Khan, Y.M., Laurencin, C.T.*: Simple signaling molecules for inductive bone regenerative engineering. *PLOS ONE*, 2014, 9 (7), e101627
4. Jiang, C.*, Kuang, L.*, Merkel, M.P., Yue, F., Cano-Vega, M.A., Narayanan, N., Kuang, S.*, Deng, M.*: Biodegradable polymeric microsphere-based drug delivery for inductive browning of fat. *Frontiers in Endocrinology*. 2015, 6:169.
5. Narayanan, N.*, Jiang, C., Uzunalli, G., Shalumon, K.T., Laurencin, C.T., Deng, M.*: Polymeric electrospinning for musculoskeletal regenerative engineering. *Regenerative Engineering and Translational Medicine*. 2016, 2(2):69-84.
6. Damayanti, N., Buno, K., Narayanan, N., Harbin, S., Deng, M., Irudayaraj, J.: Monitoring focal adhesion kinase phosphorylation dynamics in live cells. *Analyst*. 2017, 142, 2713-2716.
7. Xiong, Y., Page, J., Narayanan, N., Wang, C., Jia, Z., Yue, F., Shi, X., Jin, W., Deng, M., Shi, R., Shan, T., Yang, G., Kuang, S.*: Peripheral neuropathy and hindlimb paralysis in a mouse model of adipocyte-specific knockout of *lkb1*. *EBioMedicine*. 2017, 24, 127-136.
8. Jiang, C.*, Cano-Vega, M.A.*, Yue, F., Kuang, L., Narayanan, N., Uzunalli, G., Merkel, M.P., Kuang, S.*, Deng, M.*: Dibenazepine-loaded nanoparticles induce local browning of white adipose tissue to counteract obesity. *Molecular Therapy*. 2017, 25(7):1718-1729.
9. Sulimai, N.H.*, Ko, J., Jones-Hall, Y.L., Weng, H., Deng, M., Breur, G., Knipp, G.T.: Evaluation of 25% poloxamer as a slow release carrier for morphine in a rat Model. *Frontiers in Veterinary Science*. 2018, 5: 19.
10. Kuang, L.*, Damayanti, N., Jiang, C., Xing, F., Liu, W., Narayanan, N., Irudayaraj, J., Campanella, O., Deng, M.*: Bioinspired glycosaminoglycan hydrogels via click chemistry for 3D dynamic cell encapsulation. *Journal of Applied Polymer Science*. 2019, 136(5): 47212.
11. Kuang, L., Lengemann, P., Deng, M.: Polymeric Hydrogels via Click Chemistry for Regenerative Engineering. In *Regenerative Engineering: Advanced Materials Science Principles: Polymers and Polymer Synthesis*, Cato Laurencin and Yusuf Khan (Editors), 2018.

Presentations

1. “Regenerative Biomaterials: Convergence of Materials Science, Cell Biology, and Translational Bioengineering”, *Frontiers in Macromolecular Science Lecture Series in the Institute of Chemistry, Chinese Academy of Sciences*. July 2016.
2. “Cell-instructive Biomaterials for Musculoskeletal Soft Tissue Regenerative Engineering”, Thought Leader Symposium on “Regenerative Engineering: A Look To The Year 2017”, Society for Biomaterials Annual Meeting. April 2017.
3. “Cell-instructive Biomaterials for Musculoskeletal Regenerative Engineering”, Symposium on “Emerging Topics in Biological Engineering”, ASABE Annual Meeting. July 2018.