

>>> ANNOUNCEMENT



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Biologically inspired tissue engineering and biomaterials approaches for cancer research

ABSTRACT

Tumor angiogenesis, desmoplasia, and metastasis are regulated by dynamic interactions between tumor and stromal cells. However, the biological and physical mechanisms by which these hallmarks of cancer are modulated still remain unclear due in part to the lack of appropriate model systems. Our lab integrates tissue engineering, biomaterials, and cancer biology to gain an improved understanding of the molecular, cellular, and tissue level responses underlying tumor angiogenesis, desmoplasia, and bone metastasis. This talk will place a particular emphasis on the regulatory roles of the extracellular matrix in these processes. It will highlight a spectrum of pathologically relevant 3-D culture models that were developed in our lab by combining tissue engineering, microfabrication, and materials science tools. These studies inform the development of improved therapies for cancer patients. Additionally, they generate knowledge critical to the design of safe and efficacious biomaterials for regenerative applications.

BIO

- 2013-2014** Visiting Scientist, Max Planck Institute of Colloids and Interfaces, Department of Biomaterials, Potsdam, Germany
- 2013-** Associate Professor of Biomedical Engineering, Cornell University, Ithaca, NY
- 2007-2013** Assistant Professor of Biomedical Engineering, Cornell University, Ithaca, NY
- 2006** Adjunct Assistant Professor of Biomedical Engineering, Cornell University, Ithaca, NY
- 2004-2006** Postdoctoral Research Fellow, Harvard University, Cambridge, MA
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Leibniz Institute of Polymer Research, Max-Bergmann Center of Biomaterials
Seminar Room B1, Ground floor, Budapester Straße 27

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