

# Connie H. Manz

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## EDUCATION

### **The University of Texas at Dallas**

*Candidate for Doctor of Philosophy in Materials Science and Engineering*

### **Massachusetts Institute of Technology**

*Master of Engineering in Materials Science and Engineering, September 2007*

- Thesis: Assessment of In Vitro Engineered Microvascular Networks and their Application in the Treatment of Chronic Wounds
- Evaluated current state of technology, applied technology to potential product, and conducted opportunity assessment for technology in advanced wound care market

### **Massachusetts Institute of Technology**

*Bachelor of Science in Materials Science and Engineering, February 2006*

## EXPERIENCE

2011-present

### **The University of Texas at Dallas**

Richardson, TX

*Graduate Research Assistant*

- Developing methods to incorporate porosity into flexible electrodes
- Fabricating 2D and 3D multi-electrode arrays for in vitro cell culture
- Investigating biomechanics of prolapse tissue using dynamic mechanical analysis (DMA)

2008-2009

### **Mars and Co**

San Francisco, CA

*Associate Consultant*

- Conducted volumetric analyses of retail markets and players, assessed strategic fit of possible acquisitions, and analyzed brand/product pricing architecture for Fortune 500 companies
- Researched global alternative energy market to determine appropriate investment mix, evaluated business plan options for biofuels hybrid seed company, and assessed \$25M investment opportunity in a medical devices fund for Mexican private equity fund

2006

### **Charles Stark Draper Laboratory**

Cambridge, MA

*Contract Researcher in Bioengineering Department*

- Developed procedure for preparing degradable polymer films used in cell assays
- Established conditions for cell viability and proliferation on polymer scaffolds & films
- Created data test sets to study factors affecting human scent volatiles

2005

### **Institute of Bioengineering & Nanotechnology (IBN)**

Singapore

*Summer Intern*

- Optimized hyaluronic acid hydrogel formulations for tissue engineering applications
- Studied effects of collagen on cell spreading on hydrogels

2004

### **ETEX Corporation**

Cambridge, MA

*Summer Intern*

- Developed formulations for injectable calcium phosphate-based bone substitutes
- Characterized formulations using FTIR, RPH, and compressive strength tests

2003-2005

### **Massachusetts Institute of Technology**

Cambridge, MA

*Undergraduate Researcher in Depts. of Materials Science & Engineering and Chemical Engineering*

- Studied order-disorder transition in pyrochlores using modeling, XRD, and neutron diffraction
- Characterized nanomechanics of nacre using compression tests, nanoindentation, AFM, and SEM
- Measured viability and proliferation of cells encapsulated in hyaluronic acid hydrogels

## **CONFERENCE PRESENTATIONS**

[1] Manz C, Ware B, Gonzales J, Voit W. Shape Memory Polymer Coated Local Sonic Resonators to Enable Dynamic Acoustic Metamaterial Fabrication. Poster: 2011 MRS Fall Meeting; 2011 Nov 30; Boston, MA

## **SKILLS**

- Cleanroom fabrication: photolithography, metallization, reactive ion etching
- Thermal/mechanical analysis: DMA, DSC, TGA, uniaxial testing
- Experience with materials/chemical characterization including GC-MS, GPC, FTIR, AFM, SEM