Biomedical Engineering

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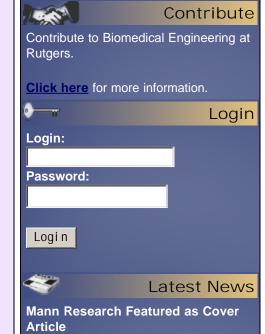
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Our lab seeks an understanding of mechanisms by which the neural circuitry is maintained in healthy and diseased organisms. Our main thrust has been to characterize the kinetics of nerve filopodial extension, retraction, and turnover using high resolution video microscopy and a mathematical model of this sensing activity. More recently, we have employed microfabrication to create precise patterns of guidance molecules on a substrate and to monitor nerve growth cone behavior.

Recent Papers:

- 1. Thompson DM and Buettner HM, Schwann Cell Response to Micropatterned Laminin Surfaces Tissue Engineering 7; 247-265 (2001) .
- Buettner, HM, Odde, DJ, and Burt AM, Cell Structure and Motion: Cytoskeleton and Cell Movement Encyclopedia of Cell Technology Ed. R. Spier, Wiley, New York, NY (2000).
- Odde, DJ, and Buettner, HM, Autocorrelation Function and Power Spectrum of Two-State Random Processes Used in Neurite Guidance Biophysical Journal 75; 1189-1196 (1998).

For more information, see http://sol.rutgers.edu/staff/buettner.html



The Laboratory for Computational Imaging and Bioinformatics (LCIB) Update

Professor Adrian Mann 担 research on bioglass nanofibers is featured on the

Bioactive Glass Nanofibers?describes

December 11, 2009

the...

December 16, 2009

The Laboratory for Computational Imaging and Bioinformatics (LCIB) at Rutgers, Hospital at University of Pennsylvania, and the Digital Pathology company, Bioimagene, have just signed a 3 year sponsored...

Yarmush Research Featured as **Cover Article**

December 03, 2009

Professor Martin Yarmush 担 research in the area of bionanorobotics is highlighted as a cover article in the November issue of the journal 捏EEE Transactions on Nanotechnology? The article entitled,...

BME Graduate Student Awarded NJCSCR Fellowship

December 01, 2009

BME graduate student and IGERT

fellow, **Jeffrey Barminko**, has been awarded a predoctoral fellowship from the New Jersey Commission on Spinal Cord Research for his project entitled 揈 ncapsulated MSCs...

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