

# Biomedical Engineering

[Home](#)[Intro](#)[People](#)[Education](#)[Research](#)[Industry](#)[News](#)[RU Home](#)

## Anant Madabhushi

Address: 599 Taylor Road (Bldg# 3893)  
Piscataway, NJ 08854

Room: BME-213

Phone: 732-445-4500 x6213

Email: [anantm AT RCI dot RUTGERS dot EDU](mailto:anantm@rci.rutgers.edu)



Disease informatics from the macro- to micro-scale is increasingly available for a range of detection, diagnostic, and therapy recommendation (theragnostic) applications tailored to each patient's history and current condition. With the advent of multi-modal, multi-parametric high resolution radiological imaging providing anatomical, biochemical, and physiological information, it has become increasingly important to identify the potential value of this information in the pre-operative or pre-therapeutic cancer population. At the Laboratory for Computational Imaging and Informatics at Rutgers University we have been focussed on developing image, spectral analysis and machine learning methods for efficient analysis and correlation of disease signatures across multiple scales and modalities -- from gene expression to histopathology to radiology with an emphasis on prostate cancer and more recently breast cancer. Our systems approach for quantitatively analysing multi-functional, multi-scale, multi-modal data in an integrated fashion will be extremely important in diagnostic, theragnostic (predicting response to therapy), and prognostic settings.

### Recent Papers:

1. Lee, G., Rodriguez, C, Madabhushi, A, "Investigating the Efficacy of Nonlinear Dimensionality Reduction Schemes in Classifying Gene- and Protein-Expression Studies" IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2008 <http://doi.ieeecomputersociety.org/10.1109/TCBB.2008.36>
2. Souza, A., Udupa, J, Madabhushi, A, Use of Generalized Scale for image filtering, Med. Image Anal. 2007, doi:10.1016/j.media.2007.07.007.
3. Madabhushi, A, Udupa, J, Souza, A, Generalized Scale: Theory, Algorithms and Application to Inhomogeneity Correction, Computer Vision and Image Understanding, vol. 101, pp. 100-121, Feb. 2006

[Website](#)



### Contribute

Contribute to Biomedical Engineering at Rutgers.

[Click here](#) for more information.



Login

Login:

Password:



### Latest News

#### Mann Research Featured as Cover Article

December 16, 2009

Professor **Adrian Mann**抐 research on bioglass nanofibers is featured on the cover 摳Advanced Functional Materials? The article entitled, 摳Faser Spinning of Bioactive Glass Nanofibers?describes the...

#### The Laboratory for Computational Imaging and Bioinformatics (LCIB) Update

December 11, 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**抐 research in the area of bionanorobotics is highlighted as a cover article in the November issue of the journal 摳IEEE 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 擣ncapsulated MSCs...

[More News >>](#)

