

FIU

FLORIDA INTERNATIONAL UNIVERSITY



BIOMEDICAL ENGINEERING LECTURE SERIES

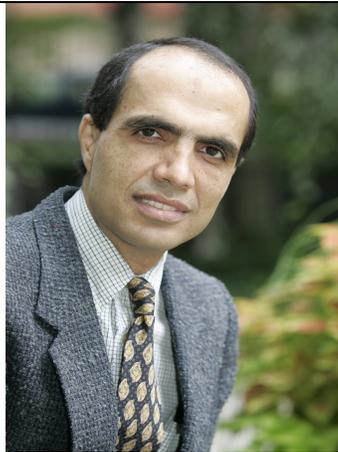
FRIDAY, FEBRUARY 16, 2007, 3:00PM

**FIU Engineering Center
10555 West Flagler Street
Room 2300**

TUMOR VASCULATURE AS A TARGET FOR DRUG DELIVERY

Ionizing radiation is used widely to treat many conditions including cancer, arteriovenous malformations, macular degeneration, and intimal hyperplasia. Patients are often treated with radiotherapy, drug-therapy or a combination of both. In most cases, using modern clinical radiotherapeutic techniques, radiation damage can be limited to a core of diseased tissue and the immediate normal tissue surrounding it. Similarly, it would be ideal for a drug or a gene to be delivered only to the diseased tissue and not to healthy tissue. We have developed a technology by which the radiation induced up-regulation of an endothelial cell adhesion molecule(s) within the diseased tissue is used as a target to deliver therapeutic agents (drugs, genes, etc.) selectively to the site of disease. Possible application of this promising technology for delivering pro-angiogenic compounds to post-infarct myocardial tissue will also be discussed.

MOHAMMED KIANI, PHD



Dr. Kiani is currently a professor and chair of the Department of Mechanical Engineering, with a joint appointment in the Department of Radiation Oncology, at Temple University. He was an NIH postdoctoral fellow at the University of Rochester from 1990 to 1993. Established Investigator Award from the American Heart Association and his research has been funded by a number of government agencies and private foundations. He has published more than 40 peer reviewed scientific articles and has made more than 120 presentations at scientific meetings. Dr. Kiani received a B.S. in electrical engineering from the University of Oklahoma in 1983 and M.S. and Ph.D. in biomedical engineering from Louisiana Tech University in 1997 and 1990, respectively. Dr. Kiani is a member of several scientific and engineering organizations including the Radiation Research Society and the Biomedical Engineering Society and serves as a reviewer for several funding agencies and a number of scientific and engineering journals.

**Hosted by the Department of Biomedical Engineering
Funded by the Wallace H. Coulter Foundation**