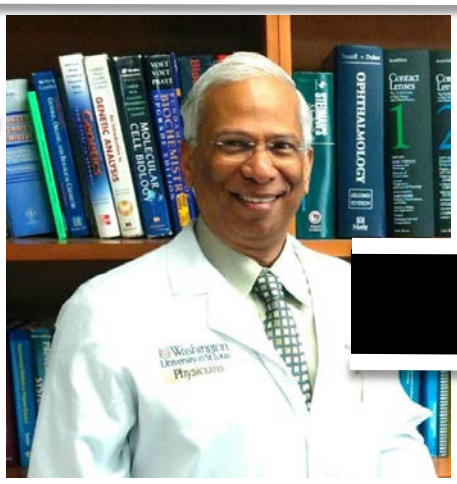
MII Seminar Series

VirginiaTech
Invent the Future

Prof. Nathan Ravi



"Biomimetic Engineering in Ophthalmology"

Nature's way of solving problems is smart, efficient, multifunctional, and environmentally friendly. Consequently, there has been a significant interest in bio-inspired and biomimetic engineering. Our group is involved in the application of these engineering principles in developing novel ocular prosthesis. Examples include an auto-focusing intra-ocular lens, vitreous substitutes, artificial proteins and gene delivery. Our research integrates chemistry, physics, biology, mathematics, engineering and medicine. Additionally, it involves developing new instrumentation techniques to explore nature's architecture and understand its complex function in its native environment. My talk will primarily focus on the physiology and pathology of the vitreous and our efforts in developing biomimetic vitreous prosthesis.

Ophthalmology and Visual Sciences;
Energy, Environment & Chemical Eng.;
Institute of Public Health
Washington University in St. Louis
St. Louis, MO 63130
Email: Ravi@vision.wustl.edu

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