



Selected Applicants for 2009 Scholarship Program



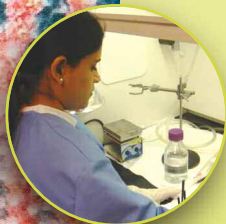
XIN WANG ~ *University of Miami*

"Tree-island habitats are nutrient and biodiversity hot spots in the *Everglades* ecosystem, maintained by two key factors: hydroperiod and nutrient redistribution. My study attempts to link these factors by examining nutrient levels among tree islands with different hydroperiods. Using specific and scientific methods, I will investigate the biogeochemical process of nutrient accumulation in relation to hydroperiod and plant water use in the tree island tropical hammock communities of the *Everglades*."



GREGORY R. KOCH ~ *Florida International University*

"My research focuses on the way in which the landscape pattern of the coastal *Everglades* influences carbon cycling and transport. The southern *Everglades* is marked by a pond-and-creek hydrologic drainage pattern and the way that this affects the fate of carbon is of significance not only to local managers but also to worldwide climate change. I will also examine the metabolism of southern *Everglades* aquatic ecosystems, which may serve as an indicator of ecosystem performance and, therefore, response to *Everglades* restoration."



SHRADHA PRABHULKAR ~ *Florida International University*

"The objective of my proposal is to develop a rapid, low cost and magnetic electrochemical sensor in a lab-on-a-chip format for phosphorus detection in *Everglades* water. Nanoparticle technology will enable highly sensitive phosphorus detection — less than 10 parts per billion — using small-sample volumes. The electrochemical detection of phosphorus in *Everglades* water samples will be conducted using a multi-array bio-MEMS chip and associated micro-magnet arrays."



JENNIFER ROMANOWICH ~ *University of Virginia*

"Seagrasses in the *Everglades* have been in danger for some time, suffering greatly from disease, elevated water temperature, severe fluctuations in salinity, and eutrophication. My study proposes comprehensive and novel field studies of combined hydro-, sediment, and nutrient dynamics in seagrass meadows, within the Florida *Everglades* under variable wave and tide conditions. With the data gathered, we can begin to predict how seagrass meadows will evolve in light of climate change and how we can best protect and maintain it."

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