

# **Engineering Supercapacitor Batteries for Effective Transport and Storage of Biological Specimens**

**PI:** Dr. Sanjay Mishra, Physics & Materials Science, College of Arts & Sciences

**Co-PI:** Dr. Jiangbiao Cui, Physics & Materials Science, College of Arts & Sciences

## **Abstract**

The proposed team project focuses on developing novel **supercapacitor batteries** for futuristic energy applications related to biologicistic. The main thrust of the research is to develop novel nanostructured based Supercapacitor for batteries which includes (1) identification of potential materials, (2) development of novel nanostructures, and (3) understanding of long term repeatability and stability of supercapacitor materials. The energy dense supercapacitors will allow effective long distance transport (mobility and controlled environment) of biological specimens and samples at an appreciably low cost. The long-term implication is that proposed efforts will result in discovery and engineering of marketable, energy dense, small carbon foot print, cheaper, material for transportation and energy applications.