



Fall 2009 Incoming Class

- **Mission:** integrates education and research to create and convey knowledge to solve problems for our State and the technological world
- **Vision:** to be recognized as a top five technological research university
- **Enrollment (Fall 09):** 5,205 (UG) and 1,610 (G)
- **Education:** degrees offered in 37 disciplines, including 18 in engineering; 40 graduate certificates
- **Research Expenditures (FY09):** \$38M
- **Tech Transfer (FY09):** 21 patent applications filed; 4 patents issued; 27 license/options signed
- **POC:** K. Krishnamurthy, Vice Provost for Research, 573-341-4134, kkrishna@mst.edu

- **Center for Bone and Tissue Repair and Regeneration**
 - ❑ bioactive glass for repair of hard and soft tissues
 - ❑ hollow microspheres and microparticles for controlled-release devices
 - ❑ rapid prototyping of bioactive glass for bone and joint repair
 - ❑ biosensors for in vitro and in vivo monitoring of bioactive glass conversion to a bone-like material
- **Cancer Detection and Treatment**
 - ❑ image processing techniques for automated diagnosis of skin cancer
 - ❑ early cancer screening using urinary pteridines as biomarkers
 - ❑ TheraSphere™ – radioactive glass microspheres for treating liver cancer
- **Medical Devices**
 - ❑ self-calibrating, autonomous glucose sensors
 - ❑ small, portable medical x-ray device using a plasma-based pseudospark for x-ray generation
- **Lead poisoning and its treatment with antioxidants**
- **Biodiversity imaging and informatics**
- **In vitro neural system to explore new learning mechanisms**