



Rensselaer

Center for Biotechnology and Interdisciplinary Studies



Discovery and innovation at the interface of the life sciences and engineering

Glenn Monastersky, Ph.D. Vietnam Education Foundation 4 January 2010

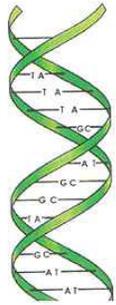
BIOTECH CENTER FACTS

- o **Opened** for research in 2005 (218,000 sf)
- o **Residents** (faculty, staff, postdoctoral fellows and graduate students): 340
- o **Academic departments** represented
 - Biology
 - Chemistry & Chemical Biology
 - Chemical and Biological Engineering
 - Biomedical Engineering
 - Physics
- o **Academic Constellations**
 - Biocatalysis & Metabolic Engineering
 - Biocomputation & Bioinformatics
 - Tissue Engineering & Regenerative Medicine

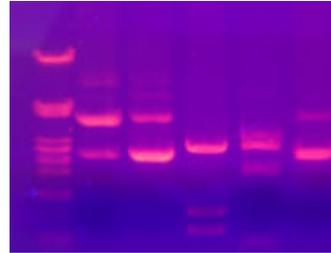
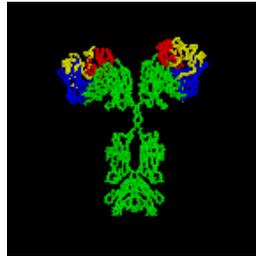


CBIS: SELECTED RESEARCH TARGETS

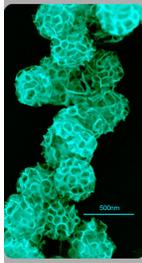
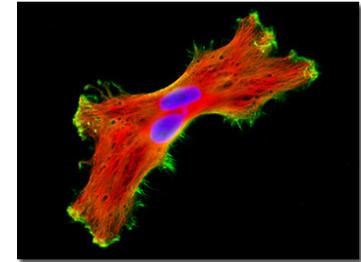
- **Alzheimer's Disease**
- **Heparin biochemistry and synthesis**
- **Infectious Disease**
- **Therapeutic protein modeling, engineering and purification**
- **Cancer**
- **Human stem cell therapy**
- **Nervous system and bone remodeling**
- **Nanotechnology**



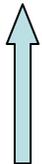
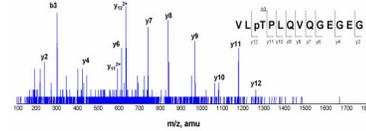
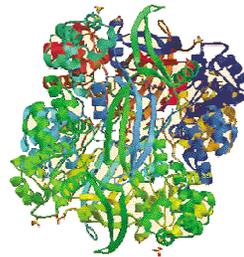
atomic and molecular



cellular – *in vitro*

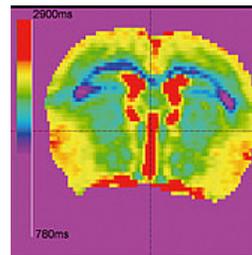


nanoscale



theoretical - *in silico*

**tissue and organism
- *in situ* and *in vivo***



CBIS: RESEARCH CORE FACILITIES

- **Nuclear Magnetic Resonance (NMR)**
- **Proteomics**
- **Microbiology / Protein Production**
- **Analytical Biochemistry**
- **Cell and Molecular Biology**
- **Microscopy**
- **BioResearch / Animal Science**
- **Biolmaging**