Georgia Tech Advisory Board

President G. Wayne Clough
April 11, 2005
Admissions

- 9,141 applications
  - 7% increase over 2004
  - 75% submitted online

- Strongest increases:
  - Ivan Allen College +46%
  - Sciences +7%
  - Hispanics +10%
  - Women +9%

- Top feeder states:
  - Florida
  - Texas
  - North Carolina
  - Virginia
  - South Carolina
Rankings remain high

- Engineering holds in top 5
  - 8 of 11 programs ranked in top 10
  - Industrial & Systems Engineering #1 for 15th year
- Management moves up 10 places to #32
- Sciences have not been ranked since 2002
  - #12 in computer science
  - #18 in applied math
  - #32 in chemistry, physics
Spring sports

Baseball team ranks #3

Softball team ranks #19

Women’s tennis ranks #6

Golf team ranks #2
State legislative results

- **Systemwide:**
  - Formula fully funded at $103 million, but last year’s cuts must be annualized
  - Major Repair and Rehab fund gets $51 million.
  - Georgia Research Alliance authorized to receive $27 million.
  - 2% nominal salary increase begins January 1.

- **GT facilities funding:**
  - $5 million to renovate historic Civil Engineering Building
  - $5 million to continue planning, design for Nanotechnology Research Center Building
Issues facing the Institute

- Intense competition for talented faculty
- Planning for next capital campaign
- Evaluating international opportunities
- Continuing implementation of the National Lambda Rail system
- Phase II of SACS accreditation: formalization of a Quality Enhancement Program (QEP)
At the federal level

- Struggle to fulfill research funding commitments
  - Very modest increase for NSF, DOE
  - DARPA/DOD cutbacks in long-term research
  - National Institutes of Health (NIH) coping with flat trajectory after years of rapid increases

- NIH still a growing market for Georgia Tech
  - From FY 00 – FY 04, awards up from $4.6 million to $17.3 million.
  - 3 large awards this year for nanomedicine total $20 million.
Biotechnology and health care

135 faculty campuswide
Wide range of topics

- Tissue engineering
- Nanomedicine
- Health care information systems
- Drug delivery
- Cancer diagnosis and treatment
- Bioinformatics
- Health care policy
- Devices and robotics

- Medical technology
- Prosthetics and orthotics
- Dental technology
- In-home assistive technologies
- Biophotonics
- Biomedical imaging
- Neuroengineering
Growing list of academic programs

- Degree programs:
  - Biomedical engineering: BS, MS, PhD
  - Bioengineering: MS, PhD, MD/PhD
  - Bioinformatics: MS, PhD
  - Health systems: MS
  - Prosthetics & orthotics: MS
  - Medical physics: MS

- Degrees awarded:
  - 1995 – 40
  - 2004 – 69
Biomedical engineering’s rapid rise to the top

1987: Robert Nerem assumes the Parker H. Petit Chair in for Engineering in Medicine, establishes the Emory/Georgia Tech Biomedical Technology Research Center.

1992: Master’s degree in biomedical engineering.

1993: Whitaker Foundation Biomedical Engineering Award.

1994: Ph.D. program in biomedical engineering, additional faculty.
1996: Parker H. “Pete” Petit endows the Petit Institute for Bioengineering and Bioscience.

1997: Joint GT-Emory Biomedical Engineering Department, Don Giddens assumes Lawrence L. Gellerstedt Chair in Bioengineering.

1998: $12.5 million NSF Center for the Engineering of Living Tissues.

1999: Opening of Petit Biotechnology Building.
Rapid rise to the top, cont.

2000: Em-Tech Bio opens. EU Center and Petit Institute co-host international conference on biotech policy.

2001: Undergraduate program in BME.


More to come!
Biotechnology Complex

April 15: Ground breaking for Molecular Science & Engineering Building
NIH research awards

in millions


$0 $2 $4 $6 $8 $10 $12 $14 $16 $18
Promoting commercialization

- Em-Tech Biotechnology Development Inc.
  - Aderans Research Institute (ARI)
  - FOB Synthesis Inc.
  - Design Science, Inc.
  - GeoVax Inc.
  - geneRx+
  - Bioplex Corporation

- Ford Environment Science & Technology Building: Wet lab incubator.

- EDTV Biotechnology Venture Capital Fund

- Technology Enterprise Park
Companies in incubation at ATDC

- Medical sensors for cardiovascular monitoring.
- Advanced biomaterials for bone and cartilage growth and adhesion.
- Optical detection systems for the pharmaceutical industry.
- Digital image distribution and archiving for the medical community.